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ABSTRACT

This comprehensive volume attempts (1) to show the extent to which legislative acts of the 1960's have made an impact in using national resources to provide persons with necessary preparations for employment; and (2) contains a major portion of what the states and territories know about their own vocational education students, programs, costs, and results. The first in a four-volume series, this Project Baseline report is mostly devoted to specific tables on vocational enrollment statistics; student-teacher ratios; enrollment by age and percent of population; enrollment by occupational area; the rank order of individual States by minority group, sex, Federal program area, and other limiting enrollment factors; expenditures for vocational education by Federal, State, and local levels per student for secondary, postsecondary, and adult education; and percentage increases in Federal expenditures. This State-by-State presentation also treats strengths and weaknesses, research and change, and new developments affecting vocational education, and offers recommendations. There are two appendixes on congressional objectives and the background of vocational education legislation. (NH)

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LEARNING A LIVING ACROSS THE NATION

PROJECT BASELINE
SECOND NATIONAL REPORT
Baseline Year: 1970-71 (Fiscal Year 1971)

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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Prepared For

THE NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

By

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TABLE OF CONTENTS

Page

LIST OF TABLES vii

LIST OF FIGURES xvi

INTRODUCTION 1

CHAPTER

I. SIGNIFICANT FINDINGS 4
Legislative Frame of Reference 4
Vocational education is part of a larger educational system in which people of all ages and interests are being prepared for useful employment in a variety of ways 4
Vocational education dominates publicly supported training of skilled workers by a wide margin 5
Nearly three-fourths of all high school students in thirty States, representing a complete cross-section of the country, were enrolled in some kind of occupationally related courses in 1970-71 6
Vocational education and manpower training in ten years have more than doubled the number of persons being trained per 1,000 population 6
Vocational education enrollments have increased in the past five years almost in geometric proportion to increases in Federal expenditures for vocational education . 7
The Federal cost per student in vocational education in 1970-71 was $43. The Federal cost per trainee in MDTA programs was $1,875. The Federal cost per trainee in EOA programs was $2,173 7
Higher percentages of minority groups than the rest of the population are enrolled in vocational education and manpower training 7
Extensive and far-reaching new developments are taking place in vocational education, and the major cause is vocational research and development 8
Vocational education is making a definite impact on the employment market 9
States vary widely in the extent to which they implement vocational education programs 9
The scope of vocational education covers the occupations in which an overwhelming majority of workers are employed 9

Among one thousand typical vocational education students in the United States in 1970-71, 554 were female and 446 male; 268 were enrolled in consumer and homemaking; 242 in office occupations, and 225 in trade and industrial occupations; 133 were disadvantaged; and 19 were handicapped 10

II. NATIONAL SCOPE OF VOCATIONAL EDUCATION AND MANPOWER TRAINING . . 11
All Federally Reported Programs 11
Comparison of vocational education enrollments with manpower and apprenticeship 12
Vocational Education 16
Vocational education enrollments at the secondary, postsecondary and adult levels 16
Secondary vocational education enrollment 16
Secondary cooperative vocational education enrollment . . 19
Secondary work study vocational education enrollment . . 26
Adult vocational education enrollment 33
Manpower and Apprenticeship Training 33
MDTA Institutional 33
MDTA On-the-Job 37
Work Incentive Program (WIN) 37
Concentrated Employment Program (CEP) 37
Neighborhood Youth Corps - Out of School (NYC-OS) 37
Occupational Industrialization Centers (OIC) 38
New Careers 38
Public Service Careers (PSC) 38
Operation Mainstream 38
Job Opportunities in the Business Sector (JOBS) 38
Jobs Optional Programs (JOP) 39
Job Corps 39
Neighborhood Youth Corps - In School (NYC-IS) 39
Enrollments in MDTA, EOA and Apprenticeship Programs . . 39
U.S. Department of Labor EOA Programs 39
Bureau of Indian Affairs Programs 44
Non-Federally Reported Programs 44
Expansion of Vocational Education, Manpower, and Apprenticeship Training 51
All programs 52
Total vocational education 52
Placement and Follow-up 53
Vocational Instruction 67
Student/teacher ratios in vocational education programs, 1970-71 67
Teachers educated by way of pre-service and in-service activities for vocational education, 1970-71 68

III. THE INDIVIDUAL STATES 93
Alabama 94
Alaska 95
Arizona 96
Arkansas 97

California 98
Colorado 99
Connecticut 100
Delaware 101
District of Columbia 102
Florida 103
Georgia 104
Hawaii 105
Idaho 106
Illinois 107
Indiana 108
Iowa 109
Kansas 110
Kentucky 111
Louisiana 112
Maine 113
Maryland 114
Massachusetts 115
Michigan 116
Minnesota 117
Mississippi 118
Missouri 119
Montana 120
Nebraska 121
Nevada 122
New Hampshire 123
New Jersey 124
New Mexico 125
New York 126
North Carolina 127
North Dakota 128
Ohio 129
Oklahoma 130
Oregon 131
Pennsylvania 132
Rhode Island 133
South Carolina 134
South Dakota 135
Tennessee 136
Texas 137
Utah 138
Vermont 139
Virginia 140
Washington 141
West Virginia 142
Wisconsin 143
Wyoming 144
American Samoa 145
Guam 146
Pacific Trust Territory 147
Puerto Rico 148
Virgin Islands 149
Additional State Data 150

IV. NATIONAL CONCENTRATIONS OF VOCATIONAL EDUCATION AND MANPOWER TRAINING . . . 154
- All Reported Programs . . . 154
- Vocational Education . . . 158
  - Enrollment per 1,000 population . . . 158
  - Secondary school enrollment in vocational education compared with total population in the 15-19 age group . 158
  - Post-secondary enrollment in vocational education compared with total population in the 20-24 year age group . . . 166
  - Adult enrollment in vocational education compared with total population in the 25-64 year age group . . . 166

V. OCCUPATIONAL DISTRIBUTION OF VOCATIONAL EDUCATION AND MANPOWER TRAINING . . . 174
- Vocational Education . . . 175
  - Enrollment in agriculture compared with total vocational education enrollment . . . 176
  - Enrollment in distributive education compared with total vocational education enrollment . . . 181
  - Enrollment in health occupations compared with total vocational education enrollment . . . 181
  - Enrollment in consumer and homemaking compared with total vocational education enrollment . . . 181
  - Enrollment in occupational home economics compared with total vocational education enrollment . . . 194
  - Enrollment in office occupations compared with total vocational education enrollment . . . 194
  - Enrollment in technical education compared with total vocational education enrollment . . . 194
  - Enrollment in trade and industrial education compared with total vocational education enrollment . . . 207
- Manpower Training . . . 207

VI. STUDENT AND TRAINEE CHARACTERISTICS . . . 292
- Vocational Education . . . 292
  - Negroes in vocational education . . . 230
  - American Indians in vocational education . . . 239
  - Orientals in vocational education . . . 248
  - Spanish-surnamed Americans in vocational education . . . 257
  - Other students in vocational education . . . 257
  - Male and female enrollment . . . 268
  - Disadvantaged students in vocational education . . . 268
  - Handicapped students in vocational education . . . 277
- Manpower Programs . . . 277
  - MDTA Manpower Training . . . 277
    - Negroes in MDTA programs . . . 277
    - American Indians in MDTA programs . . . 287
    - Orientals in MDTA programs . . . 287
    - Other trainees in MDTA programs . . . 287
  - EOA Manpower Training . . . 287

VII. COST AND FINANCIAL SUPPORT OF VOCATIONAL EDUCATION AND MANPOWER TRAINING . . . 331
Federal Expenditures for All Programs . . . 331
Federal cost per student . . . 332
Vocational Education . . . 340
Ratio of State and local to Federal expenditures . . . 340
Secondary, post-secondary, and adult expenditures . . . 343
Handicapped and disadvantaged . . . 343
Cost per student . . . 355
Increasing Federal Support Related to Expansion of Vocational Education Enrollment . . . 368
Inflation . . . 375
Cost Efficiency and Cost Benefits . . . 376

VIII. NEW DEVELOPMENTS IN VOCATIONAL EDUCATION . . . 393
Exemplary Programs . . . 398
State Administered Part D Exemplary Programs . . . 398
Career Education Programs . . . 398
Trends . . . 399

IX. RESEARCH AND CHANGE IN VOCATIONAL EDUCATION . . . 402
State Research and Development Activities . . . 403

X. STRENGTHS AND WEAKNESSES OF VOCATIONAL EDUCATION AND MANPOWER TRAINING . . . 410
Duplication and Overlapping . . . 410
Misdirection of Federal Funds . . . 412
The Instructional Gap . . . 413
Vocational Education Versus Career Education . . . 415
Impact on the Employment Market . . . 416
Impact on Target Populations . . . 418
Information and Credibility Gaps . . . 419

XI. RECOMMENDATIONS . . . 423
That legal and administrative coordination be provided in all Federally supported manpower and vocational education programs . . . 423
That a higher proportion of Federal appropriations be allocated for vocational education . . . 423
That post-secondary and adult programs receive first priority in an increase of Federal expenditures for vocational education . . . 424
That teacher education programs be expanded and funded to better prepare classroom teachers for career education . . . 424
That vocational education at the secondary level place increasing emphasis on job cluster instruction . . . 425
That all of the Nation's elementary and secondary schools be encouraged to institute career education for all students, and that vocational education be an indispensable and expanding element of career education . . . 425
That a special program of Federal assistance be established for facilities and equipment . . . 426
That the U.S. Office of Education and Congress begin consideration now of a new national educational data system . . . 426

That Congress provide the funds specifically authorized for a systematic follow-up of all persons whose training is Federally supported 428
An Idea for Consideration 428
That consideration be given to establishing a voluntary youth opportunity corps to assist those who need it in the transition from school to the world of work . . 429

XII. SUMMARY 431

APPENDIX A 432
CONGRESSIONAL OBJECTIVES OF THE MANPOWER AND VOCATIONAL EDUCATION LEGISLATION OF THE 1960s 432
Manpower Development and Training Act 432
Vocational Education Act 432
Economic Opportunity Act 432
Vocational Education Amendments 433

APPENDIX B 434
BACKGROUND OF FEDERAL VOCATIONAL EDUCATION LEGISLATION . . 435
The Act of 1963 434

LIST OF TABLES

Chapter II Page

Table 1 Numbers and Percent of Persons Receiving Vocational Education, Manpower, and Apprenticeship Training in Federally Reported Programs, 1970-71. 13
Table 2 Total Enrollments in Vocational Education Programs, 1970-71 17
Table 3A Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71 . 20
Table 3B Rank Order of States by Percent of Vocational Education Enrollments at the Secondary Level, 1970-71. . 22
Table 4A Secondary Cooperative Vocational Education Enrollment as a Percent of Total Secondary Vocational Education Enrollment, 1970-71 23
Table 4B Rank Order of States by Percent of Cooperative Vocational Education Enrollment to Total Secondary Vocational Enrollment, 1970-71. 25
Table 5A Secondary Work Study Vocational Education Enrollment as a Percent of Total Secondary Vocational Education Enrollment, 1970-71 27
Table 5B Rank Order of States by Percent of Work Study Enrollment to Total Secondary Vocational Education Enrollment, 1970-71 29
Table 6A Post-Secondary Vocational Education as a Percent of Total Vocational Education Enrollment, 1970-71. . . 30
Table 6B Rank Order of States by Percent of Vocational Education Enrollment at the Post-Secondary Level, 1970-71 32
Table 7A Adult Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71. . . 34
Table 7B Rank Order of States by Percent of Vocational Education Enrollment at the Adult Level, 1970-71 36
Table 8 Enrollments in U.S. Department of Labor Training Programs, 1970-71 40
Table 9 Enrollment in U.S. Department of Labor Occupationally Reported Economic Opportunity Act Programs, 1970-71 42
Table 10 Enrollment by Grade in Schools Operated by the Bureau of Indian Affairs, 1970-71. 45
Table 11 Secondary and Post-Secondary Enrollment In BIA Boarding and Day Schools, 1970-71 46
Table 12 Summary of Adult Vocational Training Services (Institutional) Within BIA Areas and Field Employment Assistance Offices, 1970-71. 47
Table 13 Enrollment and Percent of Secondary Students Receiving Some Form of Occupationally Related Education in Thirty States, 1970-71. 48

Table 14A Total Vocational Education Enrollment Per 1,000 Population and Percent of Change, 1961-71. 54
Table 14B Rank Order of States by Percent of Change in Total Vocational Education Enrollment per 1,000 Population, 1961-71 56
Table 15 Vocational Education Completions of Secondary, Post-Secondary and Adult Students Continuing in School, Available for Work and Employed, 1970-71. 59
Table 16 Vocational Education Completions of Secondary Students Continuing in School, Available for Work and Employed, 1970-71 61
Table 17 Vocational Education Completions of Post-Secondary Students Continuing in School, Available for Work and Employed, 1970-71 63
Table 18 Vocational Education Completions of Adult Students Continuing in School, Available for Work and Employed, 1970-71 65
Table 19 Student/Teacher Ratios in Vocational Education Occupational Areas, 1970-71 70
Table 19B Rank Order of States Showing Student/Teacher Ratios in Vocational Education, 1970-71. 72
Table 20 Student/Teacher Ratios in Agricultural Education Programs, 1970-71 73
Table 21 Student/Teacher Ratios in Distributive Education Programs, 1970-71 75
Table 22 Student/Teacher Ratios in Health Occupations Programs, 1970-71 77
Table 23 Student/Teacher Ratios in Consumer & Homemaking Programs, 1970-71 79
Table 24 Student/Teacher Ratios in Occupational Home Economics Programs, 1970-71 81
Table 25 Student/Teacher Ratios in Office Occupations Programs, 1970-71 83
Table 26 Student/Teacher Ratios in Technical Education Programs, 1970-71. 85
Table 27 Student/Teacher Ratios in Trade & Industrial Education Programs, 1970-71. 87
Table 28A Number of Vocational Education Teachers Receiving Pre-Service Training, 1970-71 89
Table 28B Number of Vocational Education Teachers Receiving In-Service Training, 1970-71 91

Chapter IV

Table 29 Enrollment in Federally Reported Vocational Education, Manpower, and Apprenticeship Training, per 1,000 Population, 1970-71 156
Table 30A Total Enrollment in Vocational Education, Per 1,000 Population, 1970-71 159
Table 30B Rank Order of States by Total Enrollment in Vocational Education per 1,000 Population, 1970-71. 161
Table 31A Secondary Vocational Education Enrollment as a Percent of Total Population, 15-19 Years of Age, 1970-71 163

Table 31B Rank Order of States by Secondary Vocational Education Enrollment as a Percent of Total Population, 15-19 Years of Age, 1970-71. 165
Table 32A Post-Secondary Enrollment in Vocational Education, as a Percent of the Total Population, 20-24 Years of Age, 1970-71. 168
Table 32B Rank Order of States by Post-Secondary Vocational Education Enrollment as a Percent of Total Population, 20-24 Years of Age, 1970-71. 170
Table 33A Vocational Education Adult Enrollment as a Percent of Total Population, 25-64 Years of Age, 1970-71 . 171
Table 33B Rank Order of States by Adult Vocational Education as a Percent of Total Population, 25-64 Years of Age, 1970-71 173

Chapter V

Table 34A Vocational Education Enrollment in Agriculture Education as a Percent of Total Vocational Education Enrollment, 1970-71 177
Table 34B Rank Order of States by Agriculture Education as a Percent of Total Vocational Education Enrollment, 1970-71. 179
Table 35A Vocational Education Enrollment in Distributive Education as a Percent of Total Vocational Education Enrollment, 1970-71 182
Table 35B Rank Order of States by Distributive Education as a Percent of Total Vocational Education Enrollment, 1970-71. 184
Table 36A Vocational Education Enrollment in Health Occupations as a Percent of Total Vocational Education Enrollment, 1970-71. 186
Table 36B Rank Order of States by Health Occupations as a Percent of Total Vocational Education Enrollment, 1970-71. 188
Table 37A Vocational Education Enrollment in Consumer and Homemaking as a Percent of Total Vocational Education Enrollment, 1970-71 190
Table 37B Rank Order of States by Consumer and Homemaking as a Percent of Total Vocational Education Enrollment, 1970-71. 192
Table 38A Vocational Education Enrollment in Occupational Home Economics as a Percent of Total Vocational Education Enrollment, 1970-71. 195
Table 38B Rank Order of States by Occupational Home Economics as a Percent of Total Vocational Education Enrollment, 1970-71. 197
Table 39A Vocational Education Enrollment in Office Occupations as a Percent of Total Vocational Education Enrollment, 1970-71. 199
Table 39B Rank Order of States by Office Occupations as a Percent of Total Vocational Education Enrollment, 1970-71. 201

Table 40A Vocational Education Enrollment in Technical Education as a Percent of Total Vocational Education Enrollment, 1970-71. 203
Table 40B Rank Order of States by Technical Education as a Percent of Total Vocational Education Enrollment, 1970-71. 205
Table 41A Vocational Education Enrollment in Trade and Industry as a Percent of Total Vocational Education Enrollment, 1970-71. 208
Table 41B Rank Order of States by Trade and Industrial Education as a Percent of Total Vocational Education Enrollment, 1970-71. 210
Table 42 Enrollment and Percent of MDTA Trainees in Agriculture and Distributive Education, 1970-71 213
Table 43 Enrollment and Percent of MDTA Trainees in Health Occupations and Occupational Home Economics, 1970-71 215
Table 44 Enrollment and Percent of MDTA Trainees in Office Occupations and Technical Education, 1970-71 . . . 217
Table 45 Enrollment and Percent of MDTA Trainees in Trade and Industrial Education and Other Occupations 1970-71 219
Table 46 Enrollment and Percent of EOA Trainees in Agriculture and Distributive Education, 1970-71 221
Table 47 Enrollment and Percent of EOA Trainees in Health Occupations and Occupational Home Economics, 1970-71 223
Table 48 Enrollment and Percent of EOA Trainees in Office Occupations and Technical Education, 1970-71 . . . 225
Table 49 Enrollment and Percent of EOA Trainees in Trade and Industrial Education and Other Occupations, 1970-71 227

Chapter VI

Table 50A Enrollment of Negro Vocational Education Students as a Percent of Total Negro Population, in Forty-six States and the District of Columbia, 1970-71 . . . 231
Table 50B Rank Order of States by Percent of Negro Population Enrolled in Vocational Education, 1970-71. 233
Table 51 Enrollment of Negro Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Negroes in Total Vocational Education Enrollment, 1970-71. 234
Table 52A Difference Between Percent of Negores in Total Vocational Education and Percent of Negroes in Total Population, 1970-71. 236
Table 52B Rank Order of States by Difference of Percent of Negroes in Vocational Education and Percent of Negroes in Total Population, 1970-71 238
Table 53A Enrollment of American Indian Vocational Education Students as a Percent of Total American Indian Population, in Forty-three States and the District of Columbia, 1970-71. 240
Table 53B Rank Order of States by Percent of American Indian Population Enrolled in Vocational Education, 1970-71 242

Table 54 Enrollment of American Indian Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of American Indians in Total Vocational Education Enrollment, 1970-71. 243
Table 55A Difference Between Percent of American Indians in Total Vocational Education and Percent of American Indians in Total Population, 1970-71. 245
Table 55B Rank Order of States by Difference of Percent of American Indians in Vocational Education and Percent of American Indians in Total Population, 1970-71. 247
Table 56A Enrollment of Oriental Vocational Education Students as a Percent of Total Oriental Population, 1970-71 249
Table 56B Rank Order of States by Percent of Oriental Population Enrolled in Vocational Education, 1970-71. . . 251
Table 57 Enrollment of Oriental Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Orientals in Total Vocational Education Enrollment, 1970-71 252
Table 58A Difference Between Percent of Orientals in Total Vocational Education and Percent of Orientals in Total Population, 1970-71 254
Table 58B Rank Order of States by Difference of Percent of Orientals in Vocational Education and Percent of Orientals in Total Population, 1970-71. 256
Table 59 Enrollment of Spanish-surnamed American Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Spanish-surnamed Americans in Total Vocational Education Enrollment, 1970-71 258
Table 60A Enrollment of Other Vocational Education Students as a Percent of Total Other Population, 1970-71. . . . 260
Table 60B Rank Order of States by Percent of Other Population Enrolled in Vocational Education, 1970-71 262
Table 61 Enrollment of Other Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Others in Total Vocational Education Enrollment, 1970-71 263
Table 62A Difference Between Percent of Other Students in Total Vocational Education and Percent of Others in Total Population, 1970-71 265
Table 62B Rank Order of States by Difference of Percent of Others in Vocational Education and Percent of Other Total Population, 1970-71 267
Table 63A Male and Female Enrollment in Vocational Education as a Percent of Total Vocational Education Enrollment, 1970-71 269
Table 63B Rank Order of States by Percent of Vocational Education Enrollment Represented by Males, 1970-71 . . . 271
Table 63C Rank Order of States by Percent of Vocational Education Enrollment Represented by Females, 1970-71 . . 272

Table 64A Enrollment of Disadvantaged Students in Vocational Education as a Percent of Total Enrollment in Vocational Education, 1970-71 273
Table 64B Rank Order of States by Percent of Vocational Education Enrollment Represented by Disadvantaged Students, 1970-71 275
Table 65A Enrollment of Handicapped Students in Vocational Education as a Percent of Total Enrollment in Vocational Education, 1970-71 278
Table 65B Rank Order of States by Percent of Vocational Education Enrollment Represented by Handicapped Students, 1970-71 280
Table 66 Enrollment of Negro MDTA Trainees as a Percent of Total Negro Population, 1970-71 281
Table 67 Enrollment of Negro MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71. 283
Table 68 Difference Between Percent of Negroes in MDTA and Percent of Negroes in Total Population, 1970-71 . . 285
Table 69 Enrollment of American Indian MDTA Trainees as a Percent of Total American Indian Population, 1970-71. 288
Table 70 Enrollment of American Indian MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71 290
Table 71 Difference Between Percent of American Indians in MDTA and Percent of American Indians in Total Population, 1970-71 292
Table 72 Enrollment of Oriental MDTA Trainees as a Percent of Total Oriental Population, 1970-71. 294
Table 73 Enrollment of Oriental MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71. 296
Table 74 Difference Between Percent of Orientals in MDTA and Percent of Orientals in Total Population, 1970-71 . 298
Table 75 Enrollment of Other MDTA Trainees as a Percent of Total Other Population, 1970-71 300
Table 76 Enrollment of Other MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71. 302
Table 77 Difference Between Percent of Others in MDTA and Percent of Others in Total Population, 1970-71. . . 304
Table 78 Enrollment of Negro EOA Trainees as a Percent of Total Negro Population, 1970-71 306
Table 79 Total Negro Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71. 308
Table 80 Difference Between the Percent of Negroes Enrolled in EOA Programs and the Percent of Negroes in the Total Population, 1970-71 310
Table 81 Enrollment of American Indian EOA Trainees as a Percent of Total American Indian Population, 1970-71 313
Table 82 Total American Indian Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71. 315
Table 83 Difference Between the Percent of American Indians Enrolled in EOA Programs and the Percent of American Indians in the Total Population, 1970-71. 317

Table 84 Enrollment of Oriental EOA Trainees as a Percent of Total Oriental Population, 1970-71. 319
Table 85 Total Oriental Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71 321
Table 86 The Difference Between the Percent of Orientals Enrolled in EOA Programs and the Percent of Orientals in the Total Population, 1970-71 323
Table 87 Enrollment of Other EOA Trainees as a Percent of Total Other Population, 1970-71. 325
Table 88 Total Other Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71 327
Table 89 Difference Between the Percent of Others Enrolled in EOA Programs and the Percent of Others in the Total Population, 1970-71. 329

Chapter VII

Table 90 Total Federal Expenditures for Vocational Education and Allocations for MDTA and EOA Programs, 1970-71 333
Table 91 Total Expenditures for Vocational Education and Allocations for MDTA and EOA Programs as a Percent of Total Federal Expenditures/Allocations, 1970-71 335
Table 92A Average Federal Expenditure/Allocation per Student or Trainee in Vocational Education, MDTA, and EOA Programs, 1970-71. 337
Table 92B Rank Order of States by Average Federal Expenditure/ Allocation per Student or Trainee in Federally Reported Vocational Education, MDTA and EOA Programs, 1970-71. 339
Table 93 Ratio of State and Local Vocational Expenditures to Federal Expenditures for Vocational Education, 1970-71 341
Table 94 Total Federal Expenditures for Secondary, Post-Secondary, and Adult Vocational Education, 1970-71 344
Table 95A Total Federal Expenditures for Secondary, Post-Secondary, and Adult Vocational Education as a Percent of Federal Expenditures for All Vocational Programs, 1970-71. 346
Table 95B Rank Order of States by Federal Expenditures for Secondary Vocational Education as a Percent of Federal Expenditures, for All Vocational Education, 1970-71. 348
Table 95C Rank Order of States by Federal Expenditures for Post-Secondary Vocational Education as a Percent of Federal Expenditures for All Vocational Education, 1970-71. 349
Table 95D Rank Order of States by Federal Expenditures for Adult Education as a Percent of Federal Expenditures for All Vocational Education, 1970-71. . . . 350
Table 96 Federal and State/Local Expenditures for Handicapped Vocational Education Students as a Percent of Total Vocational Education Expenditures, 1970-71 351

Table 97 Federal and State/Local Expenditures for Disadvantaged Vocational Education Students as a Percent of Total Vocational Education Expenditures, 1970-71 353
Table 98A Federal and State/Local Expenditures per Student in Vocational Education, 1970-71 356
Table 98B Rank Order of States by Federal and State/Local Expenditures per Student in Vocational Education, 1970-71 358
Table 99A Federal and State/Local Expenditures per Student in Secondary Vocational Education, 1970-71 359
Table 99B Rank Order of States by Federal and State/Local Expenditures per Student in Secondary Vocational Education, 1970-71. 361
Table 100A Federal and State/Local Expenditures per Student in Post-Secondary Vocational Education, 1970-71. . . . 362
Table 100B Rank Order of States by Federal and State/Local Expenditures per Student in Post-Secondary Vocational Education, 1970-71. 364
Table 101A Federal and State/Local Expenditures per Student in Adult Vocational Education, 1970-71 365
Table 101B Rank Order of States by Federal and State/Local Expenditures per Student in Adult Vocational Education, 1970-71 367
Table 102 Comparison of Secondary Vocational Education Federal and State/Local Expenditures with Secondary Vocational Education Enrollment, 1970-71. 369
Table 103 Comparison of Post-Secondary Vocational Education Federal and State/Local Expenditures with Post-Secondary Vocational Education Enrollment, 1970-71. 371
Table 104 Comparison of Adult Vocational Education Federal and State/Local Expenditures with Adult Vocational Education Enrollment, 1970-71 373
Table 105 Percent of Increase in Total Federal Expenditures for Vocational Education Compared With Percent of Increase in Total Vocational Education Enrollment, 1961-71 377
Table 106A Percent of Increase in Total Vocational Education Enrollment Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1961-71. 379
Table 106B Rank Order of States by Percent of Increase in Total Vocational Education Enrollment Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1961-71 381
Table 107 Percent of Increase in Federal Expenditures for Vocational Education Compared with Percent of Increase in Total Vocational Education Enrollment, 1961-1966 382
Table 108A Percent of Increase in Total Vocational Education Enrollment Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1961-66. 384

Table 108B Rank Order of States by Percent of Increase in Federal Expenditures Compared with Percent of Increase in Vocational Education, 1961-66. 386
Table 109 Percent of Increase in Total Federal Expenditures for Vocational Education Compared with Percent of Increase in Total Vocational Education Enrollment, 1966-1971. 387
Table 110 Percent of Increase in Total Vocational Education Enrollment Compared with Percent of Increase in Total Federal Expenditures for Vocational Education, 1966-71. 389

Chapter VIII

Table 111 Innovative, Exceptional, and Exemplary Vocational Education Programs Categorized by Purpose, 1970-71 395
Table 112 Estimated Career Education Enrollment, 1970-71. . . 400

Chapter IX

Table 113 Vocational Education Research and Development Projects Classified in Nine Areas, 1970-71 404
Table 114 State Administered Part C Research and Development Expenditures by Purpose, 1970-71 408

LIST OF FIGURES

Chapter II Page

Figure 1 Comparison of States by Percent of Change in Vocational Education Enrollment per 1,000 Population, 1961-71 57

Chapter IV

Figure 2 Comparison of States by Total Enrollment in Vocational Education per 1,000 Population, 1970-71. . . 162

Chapter V

Figure 3 Comparison of States by Percent of Vocational Education Enrollment in Agriculture. 180
Figure 4 Comparison of States by Percent of Vocational Education Enrollment in Distributive Education, 1970-71 185
Figure 5 Comparison of States by Percent of Vocational Education Enrollment in Health Occupations, 1970-71. . . 189
Figure 6 Comparison of States by Percent of Vocational Education Enrollment in Consumer & Homemaking, 1970-71 . 193
Figure 7 Comparison of States by Percent of Vocational Education Enrollment in Occupational Home Economics, 1970-71 198
Figure 8 Comparison of States by Percent of Vocational Education Enrollment in Office Occupations, 1970-71 . . 202
Figure 9 Comparison of States by Percent of Vocational Education Enrollment in Technical Education, 1970-71 . . 206
Figure 10 Comparison of States by Percent of Vocational Education Enrollment in Trade and Industrial Education, 1970-71 211

INTRODUCTION

Education has nearly always been a powerful force in American life in raising the status of individuals from one level to another. Vertical mobility has been possible since colonial indentured servants were able to become businessmen and landowners. And long before free land on the western frontier gave out, free education had become the key to success and personal achievement for large numbers of poor and middle class Americans, native born and immigrant.

It still is. The American dream begins with getting an education. But something has happened to erode some of the reality from both the dream and the means of achieving it for many. Education has not altogether kept up with the needs of people. Too much rigidity has developed; too much emphasis has come to be placed on preparation for college, too little on preparation for a rewarding life including earning a living.

This is not to say that too many students are going to college. The arguments and statistics used to arrive at that conclusion are not very convincing, and most people continue to believe that college is the capstone of the educational system. The problem is that too many students in elementary and secondary schools are being prepared for nothing else. And of those who go to college too many are going too haphazardly, too poorly prepared, and for the wrong reasons.

Many educators, businessmen, working people, and parents have felt for a long time that the schools should place more emphasis on preparing students for employment. This was the complaint more than a century ago which led to the land grant college legislation of the 1860s, and again more than fifty years ago which led to the Smith-Hughes and subsequent vocational education acts.

In the 1960s, with rapidly advancing technology in virtually every field of employment creating obsolescence in job skills and widespread unemployment for the unskilled, Congress again responded. The Manpower Development and Training Act of 1962, the Vocational Education Act of 1963, the Economic Opportunity Act of 1964, and the Vocational Education Amendments of 1968 were major efforts to use national resources in providing every person who needed it with the necessary preparation for employment.

In the judgement of many of those who led these efforts, they should have had a profound effect on American education. Perhaps they will yet. There is considerable evidence that they have made an impact, and the extent of that impact is documented in the following Baseline report. But the net result at this time is still more than a little disappointing. Large numbers of students continue to go through school without adequate preparation for the world of work. Dropouts, pushouts, and failures litter the educational scene. And jobs go begging which require the skills most unsuccessful students could have acquired in school if they had been given the opportunity.

There is concensus among vocational educators, shared by many members of Congress and some administrators, that the achievement of more satisfactory results from the legislation of the 1960s has been hampered by two problems. One is lack of money. Substantial parts of the Federal funds authorized in the 1963 Act and 1968 Amendments have never been budgeted by the U.S. Office of Education nor appropriated by Congress. And while the States have moved toward stronger financial support of vocational education, this trend has been hesitant and uneven. The broken promises of the Federal Government year after year seem to have a depressing effect on both State legislatures and local school boards in assuming as much of the burden as they might otherwise carry.

The other problem has been a sustained and fundamental disagreement between Congress and the Executive branch over direction of policy. Few members of Congress in either party are satisfied that the Administration has seriously tried to implement that basic policy of the Vocational Education Acts of the 1960s. Numerous disagreements have been recorded in the Senate proceedings on confirmation of Commissioners of Education, in Appropriations Committee hearings, in legislative oversight hearings, and on the floor of the House and Senate. This situation has extended through the terms of three Presidents and in both political parties.

In spite of these problems, many people believe that failure to provide satisfactory education for a great number of students lies with the schools themselves. School administrators have their critics; vocational teachers blame academic teachers; academic teachers criticize schools of education; guidance and counseling departments are thought to be poorly qualified to guide students in the selection of careers and career preparation; and educators generally feel that school budgets are too low, while taxpayers groups feel they are too high.

In the meantime no one really knows just what vocational education is doing, who is being prepared for what, if vocational graduates are benefiting from their education, and how much it is costing. The U.S. Office of Education for years has provided a few statistics, but when Congress was working on the Vocational Education Amendments of 1968 these statistics were found to be quite inadequate. The Appropriations Committees have complained year after year that they could not get the kinds of information they needed for the decisions they had to make. The National Advisory Council on Vocational Education, created under the 1968 Amendments, found itself seriously handicapped in performing the functions for which it was supposed to be responsible.

Project Baseline was established to get the information everyone needs and no one seems to have. It is a joint undertaking. The Appropriations Committees of Congress asked for it and directed that specific funds be used to carry it out. The National Advisory Council on Vocational Education was asked to be the agency to do the job. The U.S. Office of Education has provided the funds and contracted with Northern Arizona University to provide the staff. Technical Education Research Centers, Inc. has conducted a significant part of the field research. Dr. Melvin Barlow and his graduate students at UCLA have performed much of the analysis and some of the writing. Directors of Education in all fifty States, the District of Columbia, Puerto Rico and the terrirories and their staffs have been heavily involved. Altogether, more than 700 people have provided time and effort in researching, analysing, writing, and reviewing the materials produced.

The two volumes which follow are the results of two years of this united effort. They contain a major portion of what the States, the District of Columbia, Puerto Rico and the territories know about their own vocational education students, programs, costs, and results. They are compilations of statistical and descriptive data for the school years 1970-71 and 1971-72. Volume III, which will be published in October, 1974, will add the 1972-73 data, and Volume IV in 1975 will complete the series with 1973-74 data. Each year's data will be compared with the preceding year, and together they will identify trends and confirm developments in vocational education which cannot be known through the information available for a single point in time.

In addition to all of the information that is available in the States about their vocational education programs, Project Baseline attempts to fill in the complete picture of manpower training in the United States. From the U.S. Department of Labor, which administers the MDTA and EOA funds for manpower training, comes all of the data available about these trainees and how they fit into the total picture. From the National Center for Educational Statistics in the U.S. Office of Education and from State regulatory and licensing agencies comes information about private training programs. The National Center for Educational Statistics also provides valuable information from national surveys on secondary and post-secondary students, both academic and vocational. And in almost every State there is a Research Coordinating Unit established originally by the U.S. Office of Education to develop research in vocational programs. These are now operating within State Departments of Education and universities, and they are veritable gold mines of information about what is going on in their own States and throughout the Nation.

Project Baseline shamelessly borrows from them all. This we believe is the way the picture of vocational education and manpower training in the United States can be put together. As far as we know, this is the only way.

Chapter I

SIGNIFICANT FINDINGS

Legislative Frame of Reference

The manpower and vocational education policies established by Congress[1] during the past decade were intended to (1) assist in training persons needed for employment by business and industry, (2) train or retrain persons whose skills have become obsolete, (3) assist the States in providing ready access to vocational training or retraining for high school students, school dropouts, post-high school students, adults who need to upgrade their skills or learn new ones, and students with special educational handicaps, (4) open to everyone the opportunity for education, training, and work, (5) add a new emphasis in vocational education to traditional programs at the secondary level so that they are complemented with stronger post-secondary programs and programs for the disadvantaged, and (6) develop a continuum in vocational education from the elementary level through secondary, post-secondary, and adult in which academic and career preparation are inseparably joined. This is the frame of reference in which the present study was undertaken, the results compiled, and the following conclusions noted.

1. VOCATIONAL EDUCATION IS PART OF A LARGER EDUCATIONAL SYSTEM IN WHICH PEOPLE OF ALL AGES AND INTERESTS ARE BEING PREPARED FOR USEFUL EMPLOYMENT IN A VARIETY OF WAYS.

What has been known as vocational education since World War I is becoming an integral part of the American public school system. It has reached out in the past ten years to include post-secondary and adult programs in a variety of institutional arrangements. Vocational education funds are used to provide work-oriented and exploratory instruction all the way down to kindergarten. Guidance and counseling are becoming adjuncts of vocational education in a growing number of schools where the curriculum is no longer designed almost solely to prepare students for college.

There are indications that in the schools themselves vocational education is becoming increasingly interrelated with a variety of occupationally oriented courses. Besides the most common, industrial arts and general business, these include music, art, journalism, and even such courses as driver education. The term vocational education is still used to designate certain programs or courses, still called vocational agriculture, home economics, secretarial training, distributive education, and trade and industrial education. But this has become simply the trational breakdown; in a great many cases vocational education cannot be so easily identified.

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[1] The intent of Congress is clearly spelled out in the legislation and accompanying Congressional Reports. Pertinent excerpts are contained in Appendix A, p. 432. Anyone who is not familiar with the basic concepts of this series of statutes is advised to read these excerpts.

Vocational education and the public school system have also become part of a larger system of occupational training which did not exist ten years ago. The actual training for a large number of unemployed or underemployed persons in the Federal manpower programs supported through the Department of Labor is provided by vocational education. Apprentices in many programs administered through the Federal Bureau of Apprenticeship Training and State apprenticeship councils receive supporting education in schools under vocational programs. Vocational education is directly involved in a wide range of skill centers, area vocational schools, technical institutes, cooperative programs, work study, and on-the-job training in business and industry. In most cases, only the experts can tell just by looking what is vocational education and what is something else. A suspicion may be entertained that to most people it makes little difference.

2. VOCATIONAL EDUCATION DOMINATES PUBLICLY SUPPORTED TRAINING OF SKILLED WORKERS BY A WIDE MARGIN.

In 1970-71 nearly ten million persons were being trained for employment in publicly supported programs. These included vocational education students, Manpower Development Training Act (MDTA) trainees, trainees in a variety of programs established under the Economic Opportunity Act of 1964, and apprentices. Nearly nine million -- ninety-three percent -- were vocational education students. Nearly one-half million -- four percent -- were trainees in MDTA and Economic Opportunity Act (EOA) programs. Nearly three hundred thousand -- three percent -- were apprentices.

Consumer and homemaking students, who comprise 26.8 percent of all vocational education enrollments, are included in the total. However, approximately the same number of secondary school students apparently are receiving some kind of occupational education in addition to those reported. And although consumer and homemaking programs are not usually thought of as preparation for jobs, they constitute training for life activity in which virtually 100 percent of the graduates are subsequently engaged.

In very limited fashion, the manpower programs -- especially those established under the Economic Opportunity Act -- provide training for a disadvantaged segment of the population that is widely scattered in the work and welfare forces and not in school. These people are not easily served, and therefore require a heavy concentration of effort and resources. However, vocational education also serves the disadvantaged, and in 1970-71 there were nearly three times as many disadvantaged persons in vocational education programs as there were trainees in all of the MDTA and EOA programs combined -- nearly one million, four hundred thousand. Furthermore, a substantial number of these were adults and out-of-school youth whose social and economic circumstances were not different from those of manpower trainees.

No data are available on the employment of MDTA or EOA trainees after their training, and the data on employment of vocational education students are seriously inadequate. The data available do show that more than one-half million persons who completed vocational education programs the year before were reported in 1970-71 to be employed in the fields for which they were trained or in related fields. This is more than the entire enrollment in the manpower programs.

The conclusion is inescapable: Vocational education programs were serving the needs for job training in the United States in 1970-71 by a margin of at least nine to one over all other publicly supported programs.

3. NEARLY THREE-FOURTHS OF ALL HIGH SCHOOL STUDENTS IN THIRTY STATES, REPRESENTING A COMPLETE CROSS-SECTION OF THE COUNTRY, WERE ENROLLED IN SOME KIND OF OCCUPATIONALLY RELATED COURSES IN 1970-71.

Twenty-four percent of all high school students in the thirty States from which complete data were available were enrolled in vocational education programs, excluding consumer and homemaking. Fifteen percent were enrolled in consumer and homemaking programs. An additional thirty-four percent were enrolled in general business or industrial arts courses not reported as vocational education. Many of the latter are not preparing students for jobs, but a substantial number of them appear to be little if any different than vocational education courses. Some are definitely vocational programs which for a variety of reasons, are not being reported as such by local schools to State vocational education agencies or to the U.S. Office of Education.

The significance in these unreported enrollments and programs is, first of all, that the schools are providing occupational education of some kind at the secondary level to a great many more students than have been reported. Secondly, very little is known about these programs, but there are reasons to believe that many of them are attempting to provide job training in presumably ill-equipped facilities, underbudgeted and poorly coordinated with other job training programs in the same schools or school districts. The third and contrary observation is that some of these programs are fully equipped and as competently taught as the great majority of vocational education programs, but, because they do not meet specific State or Federal requirements, are disqualified from receiving vocational support funds and therefore are not reported. Finally, in a great many schools the non-reported programs are providing the nucleus for career education more readily than vocational courses because they are better integrated with the academic programs.

4. VOCATIONAL EDUCATION AND MANPOWER TRAINING IN TEN YEARS HAVE MORE THAN DOUBLED THE NUMBER OF PERSONS BEING TRAINED PER 1,000 POPULATION.

The total growth rate for all programs in students and trainees per 1,000 population was 116 percent from 1961 to 1971. It was as high as 658 percent in a single State. Vocational education alone increased by 110 percent. Five States had growth rates in vocational education of more than 300 percent; one showed a gain of 716 percent.

5. VOCATIONAL EDUCATION ENROLLMENTS HAVE INCREASED IN THE PAST FIVE YEARS ALMOST IN GEOMETRIC PROPORTION TO INCREASES IN FEDERAL EXPENDITURES FOR VOCATIONAL EDUCATION.

There is every reason to believe that increases in Federal support for vocational education now produce correspondingly greater increases in the numbers of persons being enrolled. This has not been true throughout the past decade. The Federal legislation of 1963 and 1968 shifted a substantial part of the emphasis in all vocational education from numbers trained to the nature and quality of the training provided. This more than offset for a while an increase in enrollments that resulted from broadening the definition of vocational education to include more programs.

In the past ten years Federal expenditures for vocational education have increased by 722 percent. Enrollments in vocational education during the same period increased by only 137 percent, a difference of 585 percentage points. However, more than half of the difference was accounted for in the five years from 1961 to 1966. From 1966 to 1971 Federal expenditures increased by sixty-eight percent and vocational education enrollments gained fifty-one percent, a difference of only seventeen percentage points.

6. THE FEDERAL COST PER STUDENT IN VOCATIONAL EDUCATION IN 1970-71 WAS $ 43. THE FEDERAL COST PER TRAINEE IN MDTA PROGRAMS WAS $1,875. THE FEDERAL COST PER TRAINEE IN EOA PROGRAMS WAS $2,173.

The Federal Government pays only a portion of the cost of training in vocational education; the rest is paid by the States and local schools. In the MDTA and EOA manpower training programs, virtually all costs are paid by the Federal Government. Most manpower programs not only pay instructional costs but also various benefits, such as subsistence allowances, medical care, transportation, and special counseling and placement services. The total cost per student in vocational education cannot be determined because of inadequate data on local school costs, and on an annual basis in some programs it may be as high or higher than in the manpower programs. However, on a cost-per-student-hour or cost-per-student-day basis it would almost certainly be substantially lower.

7. HIGHER PERCENTAGES OF MINORITY GROUPS THAN THE REST OF THE POPULATION ARE ENROLLED IN VOCATIONAL EDUCATION AND MANPOWER TRAINING.

The proportion of Negroes to all other students is nearly twice the proportion of Negroes to non-Negroes in the total population. Nineteen percent of all vocational education enrollments are Negroes, compared with eleven percent in the total population. Within individual States, however, the relative participation varies considerably. In one State and the District of Columbia, the proportion of Negro enrollments in vocational education exceeds the proportion in the total population by more than twenty-five percentage points. Fourteen States, on the other hand, enroll a smaller percent of Negroes in vocational education than are found in their respective populations. One northern industrial State with approximately the same percent of Negroes in its population as a bordering industrial State has three times the percent of Negroes enrolled in vocational education.

In most States where the American Indian population is large enough to constitute a distinct minority, there is considerably smaller enrollment of this group than of the Negro minority. Nationally the percent of American Indians enrolled in vocational education exceeds the percent in the total population, but only by 0.13 percentage points. Three States have American Indian populations of more than ninety thousand; one State has thirty-two thousand; and nine States have between ten and twenty thousand. The percent of American Indians enrolled in vocational education is less than six percent in all but two of these States and less than three percent in seven of them. None of the States with ninety thousand or more American Indians have more than six percent in vocational education.

Nationally the percent of Orientals enrolled in vocational education is also only slightly higher than in the total population. It ranges from more than ten percentage points higher in one State with a large Oriental population to slightly lower in twenty-one States with comparatively small Oriental populations.

Spanish-surnamed Americans constitute the second largest minority enrolled in vocational education and in the total population. In one southwestern State approximately half of all vocational education students are in this group, and only four States with substantial Hispanic populations have fewer than fifteen percent.

8. EXTENSIVE AND FAR-REACHING NEW DEVELOPMENTS ARE TAKING PLACE IN VOCATIONAL EDUCATION, AND THE MAJOR CAUSE IS VOCATIONAL RESEARCH AND DEVELOPMENT.

It has been possible to identify and list only a portion of the research and development projects under way in 1970-71; but even the partial list shows unmistakalbe evidence of change, new concepts, new approaches and innovation in vocational education on a scale unprecedented in American education. Every State and territory in the Nation is engaged in these activities, and in the great majority of cases with apparent determination to restructure much of their traditional and current programs.

In addition to the hundreds of projects currently under way, a great many others already completed, which were supported by vocational education research funds in recent years, have borne fruit. The full impact is impossible to trace. Much of it has already been diffused so widely that new approaches and new content based on research are now accepted as established practice. Much that is new, effective, and noteworthy in vocational education can be traced to particular research projects supported by grants from the U.S. Office of Education or State research coordinating units.

9. VOCATIONAL EDUCATION IS MAKING A DEFINITE IMPACT ON THE EMPLOYMENT MARKET.

Information about what happens to former vocational education students when they leave school is incomplete, but what there is leaves no question that students do get jobs as a result of their vocational programs, and that American business and industry do receive trained manpower in significant numbers from this source. One-half million placements annually in a labor force of 84,113,000 represent 0.59 percent. It must also be recognized that the half million placements reported constitute only a partial figure. An additional unknown number were placed or found employment, including particularly students whose enrollments were not reported in the first place.

10. STATES VARY WIDELY IN THE EXTENT TO WHICH THEY IMPLEMENT VOCATIONAL EDUCATION PROGRAMS.

Every table in this report which compares States by particular features of their vocational education programs shows significant variations. In most cases these are spread over a wide range of measurable differences. In total enrollment, the States vary from twelve thousand to over one million. State enrollments per 1,000 population range from fifteen to ninety. The percent of increase in vocational education enrollments per 1,000 population from 1960-61 to 1970-71 extends from a minus 21.5 to a positive 716 percent.

Variations among the States in the kinds of programs they offer are just as great. Enrollments at the secondary level, as a portion of total vocational education, range from thirty percent to eighty-eight percent. Two States have more than fifty percent of their vocational enrollments in adult programs, while three States have less than ten percent. Two States have a fourth of their enrollments in agriculture; three States have fewer than one percent. Four States have more than forty percent of their enrollments in consumer and homemaking; two States have fewer than ten percent. The reported total cost per student is as low as $133 and as high as $1,001.

11. THE SCOPE OF VOCATIONAL EDUCATION COVERS THE OCCUPATIONS IN WHICH AN OVERWHELMING MAJORITY OF WORKERS ARE EMPLOYED.

At one time vocational education was highly specialized. Students were prepared for a limited number of occupations, each clearly identified. This is no longer true. The actual number of occupations for which preparation is given today varies from several hundred to several thousand, depending on how fine the distinctions are between them. They cover the entire Dictionary of Occupational Titles (DOT) in the U.S. Department of Labor's comprehensive classification system, and a great many areas are covered in depth.

The present scope of vocational education is somewhat concealed in its occupational classification system. There are only eight categories, but one of these is trade and industrial education, which prepares students for hundreds of different kinds of employment. Another is technical education, which in some respects covers the entire occupational range of employment at the middle level between skilled craftsmen and the professions. Technical education prepares individuals for specific employment in business, health occupations, law enforcement, agriculture, management, social work, teaching, engineering, mining, construction, and a great many more fields. There are only about three hundred DOT codes used in the U.S. Office of Education to designate vocational classes, but that is an arbitrary list based on a particular level of subdividing occupational categories. No student anywhere in school today where a complete vocational education program is available can fail to benefit from including vocational education regardless of his or her career objective.

11. AMONG ONE THOUSAND TYPICAL VOCATIONAL EDUCATION STUDENTS IN THE UNITED STATES IN 1970-71, 554 WERE FEMALE AND 446 MALE; 268 WERE ENROLLED IN CONSUMER AND HOMEMAKING, 242 IN OFFICE OCCUPATIONS, AND 225 IN TRADE AND INDUSTRIAL OCCUPATIONS; 133 WERE DISADVANTAGED, and 19 WERE HANDICAPPED.

The typical student in vocational education does not exist. One thousand students provide a good representation of the distinct differences in sex, occupational programs, educational or socioeconomic disadvantages and physical or other handicaps. The 1,000 students would include 563 at the secondary level, and of these 107 in cooperative programs; 125 at the post-secondary level; and 312 adults. There would be 190 Negroes, five American Indians, seven Orientals, fifty-nine Spanish-surnamed Americans, and 739 Others; 132 lived in California, seventy-three in New York, sixty-three in Texas, fifty-nine in Illinois, forty-eight in Florida, and 625 in the other forty-five States, the District of Columbia, and four Territories.

Chapter II

NATIONAL SCOPE OF VOCATIONAL EDUCATION AND MANPOWER TRAINING

All Federally Reported Programs

Training for employment in the United States today is provided in a variety of ways, formal and informal, public and private. Substantial numbers of persons are trained on the job by business and industry, through self-study, and in other informal ways. However, the great majority probably are trained in the more formal programs, public and private, for their initial full-time employment, for new careers, and -- to a growing extent -- for advancement of their careers.

The bulk of this training is now publicly supported, most of it involving Federal funds in some form or another. All training programs supported by Federal funds -- and some that are not -- report basic information about their activities to the Federal Government. These Federally reported programs constitute by far the largest segment of formal training available. This study deals only with those that are Federally reported by occupation; that is, with training that can be identified in terms of purpose, enrollees, cost, and support.

One Federally reported program is training in the Bureau of Indian Affairs schools -- but BIA data are Federally reported only in the sense that these are Federal schools. Data on enrollments by training program are available only in the local schools, not at the agency or even at area levels. Project Baseline has gathered some data this year on these programs, but only enough to include the program partially in this report. The data have been omitted entirely from the composite tables; since they are relatively small, their omission does not affect the over-all picture significantly.

One other Federally reported program, training in the Armed Services, is omitted from this report because the data are not Federally reported by occupation. While no doubt substantial and often used for employment later, Armed Services training programs have as their primary purpose supplying the technically skilled manpower required in military operations. The impact of such training on the domestic employment market is not known, nor is the extent of such training. It would be extremely difficult to compile individual or even summary data on training by occupation from military records, although this could be done. It would be even more difficult to determine the extent to which training in the Armed Services is used as the basis for civilian employment. It is an area that should be assessed, however, and Project Baseline will undertake a preliminary inquiry into the feasibility of gathering these data during the coming year.

Table 1 shows the total number of persons who received some kind of training or job preparation in Federally reported programs during the base year, July 1, 1970, through June 30, 1971. It does not represent completions. Not all persons enrolled in the programs included in Table 1 completed their training during the year, and a certain number left or will leave without completing. The U.S. Department of Labor data in Table 1, it should be noted, represent actual numbers of trainees, not training positions authorized, as Federal reports ordinarily show. And since Table 1 attempts to show numbers of persons rather than training positions or cumulative class and program totals, all known duplications have been eliminated. Vocational education enrollments, for example, include students receiving their instructional training in apprenticeship programs, but these students are also included in the U.S. Department of Labor's apprenticeship data, so they have been subtracted from the vocational education totals in Table 1.[1]

As with the rest of this report, data are used on only those programs of the U.S. Department of Labor that are reported by occupational training classifications. There is a sizeable gray area of programs designed for purposes other than strictly job preparation in which enrollees may receive little or no job training. This is possible also when enrollees are reported in occupational classifications, but less likely. In this study a line was drawn through the gray area of semi-training, uncertain training, and no training precisely where the U.S. Department of Labor either identifies trainees by occupation or has considered occupational reporting to be unnecessary or too difficult to determine. Programs in which enrollees are reported by occupational classifications are assumed to include training specific enough to form part of the total picture Project Baseline is attempting to identify. When they are referred to collectively in this Report the term manpower is used as a general classification, including programs established under both the Manpower Development and Training Act of 1962 and the Economic Opportunity Act of 1964.

Comparison of vocational education enrollments with manpower and apprenticeship. The total number of persons being trained for jobs in occupationally identified Federally reported programs in 1970-71 was nearly ten million. Of this number, nearly nine million, or ninety-three percent, were in vocational education; nearly one-half million, or four percent, were in manpower, and nearly three hundred thousand, or three percent, were in apprenticeships. While it is true that not all vocational education students included here were being trained for actual jobs, i.e., consumer and homemaking, it is also true that not all vocational education is being reported. Probably the highest ratio of enrollees to later employment would be in the apprenticeship programs, followed by manpower and then vocational education. Table 1 does not

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[1] In theory students may be enrolled in apprenticeship programs in vocational education and not registered as apprentices by State Apprenticeship Councils or the Bureau of Apprenticeship Training, but there were no such examples in any of the States from which information could be obtained.

TABLE 1

Numbers and Percent of Persons Receiving Vocational Education, Manpower, and Apprenticeship Training in Federally Reported Programs, 1970-71

States	Persons Receiving Training in Federally Reported Programs	Vocational Education Enrollment	Percent	Manpower Enrollment	Percent	Apprenticeship Enrollment	Percent
U.S. TOTAL	9,684,155	8,977,891[1]	93	432,027[2]	4	274,237	3
Alabama	151,689	145,517	96	3,643	2	2,529	2
Alaska	14,751	13,111	89	1,166	8	474	3
Arizona	96,964	87,429	90	7,013	7	2,522	3
Arkansas	109,812	102,454	93	6,060	6	1,298	1
California	1,258,877	1,191,519	95	39,391	3	27,967	2
Colorado	104,054	93,466	90	8,593	8	1,995	2
Connecticut	120,720	108,182	90	6,159	5	6,379	5
Delaware	32,707	30,434	93	901	3	1,372	4
Dist. of C.	19,094	10,892	57	5,711	30	2,491	13
Florida	446,427	427,871	96	9,386	2	9,170	2
Georgia	267,129	252,859	94	9,815	4	4,455	2
Hawaii	40,845	35,848	88	2,221	5	2,776	7
Idaho	32,529	29,942	92	1,949	6	638	2
Illinois	568,501	533,853	94	17,511	3	17,137	3
Indiana	142,784	127,817	90	7,207	5	7,760	5
Iowa	134,220	126,488	94	4,775	4	2,957	2
Kansas	98,369	91,902	93	4,701	5	1,766	2
Kentucky	155,517	144,220	93	7,682	5	3,615	2
Louisiana	181,576	172,152	95	5,790	3	3,634	2
Maine	27,637	23,101	84	3,189	11	1,347	5
Maryland	150,231	138,978	93	8,026	5	3,227	2
Massachusetts	139,801	118,306	84	13,535	10	7,960	6
Michigan	342,057	309,223	90	13,349	4	19,485	6
Minnesota	228,236	212,993	93	7,571	3	7,672	4
Mississippi	108,178	101,020	94	5,919	5	1,239	1

[1] Vocational education enrollment does not include institutional apprenticeship training as this is included in apprenticeship enrollment figure.

[2] This column includes: MDTA Institutional, MDTA-OJT, MDTA Part-time, WIN, CEP, NYC-OS, Operation Mainstream, OIC, PSC and New Careers.

TABLE 1 Cont'd

States	Persons Receiving Training in Federally Reported Programs	Vocational Education Enrollment	Percent	Manpower Enrollment	Percent	Apprenticeship Enrollment	Percent
Missouri	150,602	136,489	91	8,963	6	5,150	3
Montana	30,631	27,281	89	2,387	8	963	3
Nebraska	69,169	64,616	93	3,320	5	1,233	2
Nevada	20,089	17,328	86	1,726	9	1,035	5
New Hampshire	24,771	22,890	93	1,333	5	548	2
New Jersey	309,783	285,527	92	16,226	5	8,030	3
New Mexico	53,616	48,593	91	3,974	7	1,049	2
New York	709,694	654,239	92	32,783	5	22,672	3
N. Carolina	391,325	374,837	96	8,856	2	7,632	2
N. Dakota	27,895	26,046	94	1,236	4	613	2
Ohio	412,172	375,771	91	17,840	4	18,561	5
Oklahoma	113,774	103,124	91	7,912	7	2,738	2
Oregon	108,294	99,005	91	6,023	6	3,266	3
Pennsylvania	371,947	330,096	89	29,610	8	12,241	3
Rhode Island	21,810	17,321	79	2,719	13	1,770	8
S. Carolina	100,385	93,616	93	4,907	5	1,862	2
S. Dakota	23,254	21,185	91	1,577	7	492	2
Tennessee	155,979	142,813	92	7,977	5	5,189	3
Texas	604,604	569,147	94	25,002	4	10,455	2
Utah	99,224	93,881	94	3,492	4	1,851	2
Vermont	15,052	12,415	82	1,636	11	1,001	7
Virginia	249,496	236,469	95	6,886	3	6,141	2
Washington	238,366	222,855	94	10,183	4	5,328	2
W. Virginia	66,912	58,502	88	6,976	10	1,434	2
Wisconsin	198,767	182,137	92	8,308	4	8,322	4
Wyoming	15,263	14,115	93	823	5	325	2
Guam	2,817	2,440	87	NA	0	377[3]	13
Puerto Rico	111,407	109,313	98	NA	0	2,094	2
Virgin Isl.	1,769	1,769	100	NA	0	0	0
Am. Samoa	1,580	1,580	100	NA	0	0	0
Pac. Tr. Terr.	2,914	2,914	100	NA	0	0	0
Unident. States	8,089	0	0	8,089	100	0	0

[3] This figure represents institutional apprenticeship training only.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation", U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

Apprentice Registration Actions - Total All Trades by Region and State, U.S. Department of Labor, Chief of Reporting Operations, Financial and Management Information Systems, Manpower Administration, (Calendar years 1970 and 1971 combined to form FY 1971).

represent placements, only enrollments, but in comparing enrollments of the three categories shown here it is well to keep in mind their eventual impact on the employment market.[1]

Given all of these considerations, the overwhelming impact of vocational education on training for skilled employment in the United States is unmistakable. It is true that manpower programs are aimed primarily at retraining and training persons with special needs, thereby directing substantially greater resources toward fewer persons; but the post-secondary and adult levels of vocational education are doing this also. Other factors in the relationship of these programs will be examined in later chapters. But in both numbers of persons participating and probable impact on the employment market, vocational education clearly dominates by a wide margin. These overall proportions do not hold true, of course, for each individual State. Perhaps the most noticeable exception is in the stronger manpower programs and correspondingly less strong vocational education programs in the New England States, except for Connecticut and New Hampshire. Alaska and West Virginia fall in this group also. The District of Columbia appears to be in a class of its own.

Another observation to be made concerns the roughly parallel lines of manpower and apprenticeshp training in most States. Keeping in mind that each is shown as a percentage of the whole, and therefore is relative to the others. Manpower and apprenticeship cut into vocational education very little, but vocational education may affect manpower and apprenticeship enrollments significantly. If vocational education in a State is strengthened, a relative decrease in the others will likely result. Conceivably, strengthening vocational education enough would result in an actual as well as relative decrease in manpower enrollments because the need for special and emergency programs would decline. Conversely, to the extent to which vocational education does not meet the need for training in any State, manpower training programs will likely be expected to increase.

It is doubtful if vocational education exerts the same amount of inverse pressure on apprenticeship training as it does on the manpower programs. The relationship of apprenticheship training to manpower training, however, may have the same significance as the relationship of vocational education to the two of them. The percent of enrollees in apprenticeship equals or exceeds the percent in manpower in twelve States. These are Alabama, Connecticut, Delaware, Florida, Hawaii, Illinois, Indiana, Michigan, Minnesota, North Carolina, Ohio, and Wisconsin. Most of these States are the ones where apprenticeship programs are traditionally well established and relatively strong There are other States with equally well established apprenticeship programs where manpower enrollments are relatively greater, but obviously other factors are present. It would be hazardous to make more than the most general observations on the basis of total enrollments alone and their relationships to each other. Nevertheless, these data do suggest the existence of commonalities among certain States which affect the relationship among their enrollments in the different training programs.

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[1] Reliable placement and follow-up data do not exist for the great majority of Federally supported programs. Such data as are available are presented at the end of this chapter.

Vocational Education

Vocational education in American public schools dates back to the nineteenth century, and has received direct Federal support for more than fifty years.[1] That support has evolved from relatively small subsidies for vocational agriculture, home economics, and trade and industrial occupations to include all occupational areas requiring less than a baccalaureate degree. It also includes preliminary phases at the elementary, junior high school, and high school levels; post-secondary and adult programs; guidance and counseling; vocational teacher education; research and development; curriculum development; facilities construction; and experimental or innovative (exemplary) programs.

Vocational education enrollments at the secondary, post-secondary and adult levels. Fifty-six percent of the nine million vocational education students (5,157,010) in the United States in 1970-71 were high school students. Thirteen percent (1,141,071) were post-secondary students. Thirty-one percent (2,850,425) were in adult programs. Table 2 shows the breakdown in these three major categories established by law. Total enrollments for individual States ranged from 1.2 million in California to less than 13,000 in Vermont and 11,000 in the District of Columbia.[2]

Secondary vocational education enrollment. How much of the enrollment in vocational education is secondary school enrollment? On a national basis the figure is 56.4 percent. The range is from a high of 87.9 in

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[1] Appendix B contains a brief history of Federal support programs for vocational education taken from the Senate Report, S. 3770, the Vocational Education Amendments of 1968.

[2] The District of Columbia is included with the States in all data tables, analyses and comparisons in this report. Territories of the United States are included in data tables but not in all of the analyses and comparisons because population data were not available for 1970-71. In most cases, the circumstances under which programs in the territories are operated differ too much from those in the States and the District of Columbia for comparison. The Commonwealth of Puerto Rico, which has a vocational education program as complete as that in most States and whose enrollment is larger than that in twenty-six of the States, is included.

TABLE 2

Total Enrollments in Vocational Education Programs, 1970-71

States	Total Vocational Education Enrollment	Total Secondary Vocational Education Enrollment	Total Post-Secondary Vocational Education Enrollment	Total Adult Vocational Education Enrollment
U.S. TOTAL	9,148,506[1]	5,157,010	1,141,071	2,850,425
Alabama	147,220	89,061	17,041	41,118
Alaska	13,147	8,494	806	3,847
Arizona	88,471	50,310	22,281	15,880
Arkansas	103,907	53,996	6,324	43,587
California	1,204,611	540,474	338,564	325,573
Colorado	95,309	45,998	14,274	35,037
Connecticut	113,694	78,191	6,674	28,829
Delaware	31,211	27,439	718	3,054
Dist. of C.	11,008	5,681	1,144	4,183
Florida	438,087	201,016	69,634	167,437
Georgia	255,887	157,829	14,814	83,244
Hawaii	38,692	23,040	7,052	8,600
Idaho	30,370	21,844	2,820	5,706
Illinois	541,178	432,217	62,186	46,775
Indiana	131,338	86,479	6,213	38,646
Iowa	127,911	50,211	13,584	64,116
Kansas	93,151	38,468	7,393	47,290
Kentucky	145,324	87,872	9,308	48,144
Louisiana	174,373	126,251	19,076	29,046
Maine	23,424	16,458	1,628	5,338
Maryland	141,774	100,668	12,758	28,348
Massachusetts	121,950	95,411	8,711	17,828
Michigan	320,055	164,234	42,632	113,189
Minnesota	219,085	104,837	20,122	94,126
Mississippi	101,768	54,729	8,268	38,771

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[1] Totals in this column do not include any students reported below grade nine. This is also true in all subsequent tables of this report in which total vocational education enrollment figures are used, except where noted.

TABLE 2 Cont'd

States	Total Vocational Education Enrollment	Total Secondary Vocational Education Enrollment	Total Post-Secondary Vocational Education Enrollment	Total Adult Vocational Education Enrollment
Missouri	143,632	98,547	11,797	33,288
Montana	27,328	16,707	3,218	7,403
Nebraska	65,318	38,336	5,362	21,620
Nevada	18,110	12,596	1,936	3,578
New Hampshire	23,082	18,378	1,820	2,884
New Jersey	292,516	181,476	20,530	90,510
New Mexico	49,178	35,305	6,078	7,795
New York	669,717	445,606	58,965	165,146
N. Carolina	376,817	161,697	42,536	172,584
N. Dakota	26,215	16,470	4,117	5,628
Ohio	389,044	181,937	13,911	193,196
Oklahoma	104,223	60,856	5,322	38,045
Oregon	101,090	55,022	15,243	30,825
Pennsylvania	337,835	184,619	27,381	125,835
Rhode Isl.	18,370	12,026	1,081	5,263
S. Carolina	93,616	70,655	3,200	19,761
S. Dakota	21,413	14,331	1,806	5,276
Tennessee	143,572	95,472	16,346	31,754
Texas	577,695	306,570	41,912	229,213
Utah	94,983	65,131	12,294	17,558
Vermont	12,593	9,601	173[2]	2,819
Virginia	243,000	129,770	15,833	97,397
Washington	266,118	111,681	58,233	56,204
W. Virginia	59,199	33,161	2,014	24,024
Wisconsin	187,637	57,017	38,136	92,484
Wyoming	14,249	11,851	1,436	962
Guam	2,817	430	57	2,330
Puerto Rico	109,809	65,032	15,545	29,232
Virgin Isl.	1,769	1,744	25	0
Am. Samoa	1,702	1,095	607	0
Pac. Tr. Terr.	2,914	2,683	132	99

[2] This figure includes only the practical nurse education program which is administered by the State Department of Education. There are several other post-secondary occupational programs offered in the State which should be included to give a true picture of enrollments in this area. These include the associate degree programs at Vermont Technical College, Randolph; the Allied Health programs at the University of Vermont, Burlington; and the nurse education program at Castleton State College, Castleton, Vermont. There were also individuals enrolled in the Vermont Regional Community College System. Cola D. Watson, Director, Vocational-Technical Education, 8-30-72.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971

Delaware to a low of 30.4 in Wisconsin, except for U.S. Territories, where the range is much greater due to special circumstances.

These data are shown in Table 3A, which lists the percent of vocational education students who were enrolled in secondary level programs in 1970-71 nationally and for each State. In spite of the emphasis on post-secondary and adult programs since 1963 and 1968, only ten States have fewer than fifty percent of their enrollment in secondary programs. Delaware and Wyoming have more than eighty percent, and ten additional States have more than seventy percent: Illinois, New Hampshire, Massachusetts, Vermont, South Carolina, Louisiana, Idaho, New Mexico, Maryland, and Maine. This includes all the New England States except Connecticut and Rhode Island, which are not far behind with 68.8 percent and 65.5 percent respectively. Seven of the twelve States with more than seventy percent of their vocational education students at the secondary level are on the East Coast or in New England, and four additional East Coast States have more than sixty percent. North Carolina and Florida are the outstanding exceptions with 42.9 percent and 45.9 percent respectively. The District of Columbia, Virginia, and Pennsylvania are also below the national average.

States with relatively low secondary level percentages show no geographic pattern. The eleven lowest represent every region except the Northeast: Wisconsin (30.4 percent); Iowa (39.3 percent); Kansas (41.3 percent); North Carolina (42.9 percent); California (44.9 percent); Florida (45.9 percent); Ohio (46.8 percent); Minnesota (47.9 percent); Colorado (48.3 percent); Washington (49.4 percent); and Michigan (51.3 percent).

Secondary cooperative vocational education enrollment. The cooperative program is the classic ideal of vocational education. During the formative period, 1906-17, the concept of cooperation between business and education, industry and education, or employers and education was thought to be representative of the ultimate goal of vocational education. Experience since 1917 bears out the validity of the concept despite the fact that definitive data about cooperative education has been sketchy. Subjective data show a high degree of placement and a high degree of retention for students in cooperative programs. In addition, contemporary attitudes among Chambers of Commerce, Industry-Education Councils, and business generally throughout the Nation strongly support cooperative vocational education.

Table 4A and Table 4B show the relationship between enrollments in cooperative education and in all vocational education at the secondary level. Nationally 10.7 percent of secondary vocational education students are reported in cooperative programs, with State figures ranging from a high of 69.0 percent in Alaska to a low of 2.9 percent in Massachusetts and New Hampshire. Considering the importance of work experience in preparation for employment and the apparent benefits from cooperative vocational education, the national figure seems too low. Even twenty-five percent would fall considerably short of the ideal, yet only four States and the District of Columbia have percentages that high. In addition to Alaska these include Indiana (28.9 percent), Ohio (28.8 percent), the District of Columbia (25.4 percent), and Iowa (25.1 percent). In thirteen States

TABLE 3A

Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Secondary Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,148,506	5,157,010	56.4
Alabama	147,220	89,061	60.5
Alaska	13,147	8,494	64.6
Arizona	88,471	50,310	56.9
Arkansas	103,907	53,996	52.0
California	1,204,611	540,474	44.9
Colorado	95,309	45,998	48.3
Connecticut	113,694	78,191	68.8
Delaware	31,211	27,439	87.9
Dist. of C.	11,008	5,681	51.6
Florida	438,087	201,016	45.9
Georgia	255,887	157,829	61.7
Hawaii	38,692	23,040	59.5
Idaho	30,370	21,844	71.9
Illinois	541,178	432,217	79.9
Indiana	131,338	86,479	65.8
Iowa	127,911	50,211	39.3
Kansas	93,151	38,468	41.3
Kentucky	145,324	87,872	60.5
Louisiana	174,373	126,251	72.4
Maine	23,424	16,458	70.3
Maryland	141,774	100,668	71.0
Massachusetts	121,950	95,411	78.2
Michigan	320,055	164,234	51.3
Minnesota	219,085	104,837	47.9
Mississippi	101,768	54,729	53.8

TABLE 3A Cont'd

States	Total Vocational Education Enrollment	Total Secondary Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	98,547	68.6
Montana	27,328	16,707	61.1
Nebraska	65,318	38,336	58.7
Nevada	18,110	12,596	69.6
New Hampshire	23,082	18,378	79.6
New Jersey	292,516	181,476	62.0
New Mexico	49,178	35,305	71.8
New York	669,717	445,606	66.5
N. Carolina	276,817	161,697	42.9
N. Dakota	26,215	16,470	62.8
Ohio	389,044	181,937	46.8
Oklahoma	104,223	60,856	58.4
Oregon	101,090	55,022	54.4
Pennsylvania	337,835	184,619	54.6
Rhode Island	18,370	12,026	65.5
S. Carolina	93,616	70,655	75.5
S. Dakota	21,413	14,331	66.9
Tennessee	143,572	95,472	66.5
Texas	577,695	306,570	53.1
Utah	94,983	65,131	68.6
Vermont	12,593	9,601	76.2
Virginia	243,000	129,770	53.4
Washington	226,118	111,681	49.4
W. Virginia	59,199	33,161	56.0
Wisconsin	187,637	57,017	30.4
Wyoming	14,249	11,851	83.2
Guam	2,817	430	15.3
Puerto Rico	109,809	65,032	59.2
Virgin Isl.	1,769	1,744	98.6
Am. Samoa	1,702	1,095	64.3
Pac. Tr. Terr.	2,914	2,683	92.1

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 3B

Rank Order of States by Percent of Vocational Education Enrollments at the Secondary Level, 1970-71

U.S. MEAN = 56.4

State	Percent	State	Percent
Virgin Islands	98.6	Montana	61.1
Pac. Tr. Territories	92.1	Alabama	60.5
Delaware	87.9	Kentucky	60.5
Wyoming	83.2	Hawaii	59.5
Illinois	79.9	Puerto Rico	59.2
New Hampshire	79.6	Nebraska	58.7
Massachusetts	78.2	Oklahoma	58.4
Vermont	76.2	Arizona	56.9
South Carolina	75.5	West Virginia	56.0
Louisiana	72.4	Pennsylvania	54.6
Idaho	71.9	Oregon	54.4
New Mexico	71.8	Mississippi	53.8
Maryland	71.0	Virginia	53.4
Maine	70.3	Texas	53.1
Nevada	69.6	Arkansas	52.0
Connecticut	68.8	Dist. of Columbia	51.6
Missouri	68.6	Michigan	51.3
Utah	68.6	Washington	49.4
South Dakota	66.9	Colorado	48.3
New York	66.5	Minnesota	47.9
Tennessee	66.5	Ohio	46.8
Indiana	65.8	Florida	45.9
Rhode Island	65.5	California	44.9
Alaska	64.6	North Carolina	42.9
American Samoa	64.3	Kansas	41.3
North Dakota	62.8	Iowa	39.3
New Jersey	62.0	Wisconsin	30.4
Georgia	61.7	Guam	15.3

TABLE 4A

Secondary Cooperative Vocational Education Enrollment as a Percent of Total Secondary Vocational Education Enrollment, 1970-71

States	Total Secondary Vocational Education Enrollment Excluding Consumer and Homemaking	Total Secondary Cooperative Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	3,325,380[1]	355,544	10.7
Alabama	52,177	5,995	11.5
Alaska	6,509	4,491	69.0
Arizona	22,238	3,553	16.0
Arkansas	25,110	3,901	15.5
California	390,363	18,246	4.7
Colorado	28,916	3,262	11.3
Connecticut	60,328	3,213	5.3
Delaware	22,178	842	3.8
Dist. of C.	4,701	1,194	25.4
Florida	101,034	18,410	18.2
Georgia	101,706	9,540	9.4
Hawaii	13,504	673	5.0
Idaho	11,166	1,360	12.2
Illinois	401,563	18,164	4.5
Indiana	41,184	11,917	28.9
Iowa	22,615	5,671	25.1
Kansas	20,973	2,005	9.6
Kentucky	48,868	2,962	6.1
Louisiana	74,235	4,698	6.3
Maine	14,122	621	4.4
Maryland	70,509	3,632	5.2
Massachusetts	91,330	2,608	2.9
Michigan	103,493	22,604	21.8
Minnesota	43,248	9,531	22.0
Mississippi	25,606	2,098	8.2

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[1] Consumer and homemaking enrollments have been eliminated from this column because there are no cooperative work experience programs in consumer and homemaking. There are components of other programs in which no cooperative work experience is available, but students in these components could not be readily identified and are therefore included.

TABLE 4A Cont'd

States	Total Secondary Vocational Education Enrollment Excluding Consumer and Homemaking	Total Secondary Cooperative Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
Missouri	46,549	6,534	14.0
Montana	9,006	812	9.0
Nebraska	18,920	1,722	9.1
Nevada	9,471	1,145	12.1
New Hampshire	12,587	366	2.9
New Jersey	115,019	10,174	8.8
New Mexico	20,290	3,040	15.0
New York	291,506	13,929	4.8
N. Carolina	104,597	24,247	23.2
N. Dakota	8,904	1,713	19.2
Ohio	117,620	33,829	28.8
Oklahoma	34,936	8,332	23.8
Oregon	25,907	4,278	16.5
Pennsylvania	148,765	7,524	5.1
Rhode Isl.	5,131	859	16.7
S. Carolina	46,815	2,809	6.0
S. Dakota	6,096	1,087	17.8
Tennessee	49,199	6,406	13.0
Texas	137,187	33,484	24.4
Utah	45,294	1,554	3.4
Vermont	5,117	504	9.8
Virginia	91,505	14,896	16.3
Washington	62,462	5,293	8.5
W. Virginia	21,575	845	3.9
Wisconsin	52,274	2,814	5.4
Wyoming	8,114	901	11.1
Guam	358	35	9.8
Puerto Rico	28,281	5,014	17.7
Virgin Isl.	1,744	136	7.8
Am. Samoa	841	0	0.0
Pac. Tr. Terr.	1,623	70	4.3

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, &
Welfare, Washington, D.C., FY 1971.

TABLE 4B

Rank Order of States by Percent of Cooperative Vocational Education Enrollment to Total Secondary Vocational Enrollment, 1970-71

U.S. MEAN = 10.7

State	Percent	State	Percent
Alaska	69.0	Guam	9.8
Indiana	28.9	Kansas	9.6
Ohio	28.8	Georgia	9.4
Dist. of Columbia	25.4	Nebraska	9.1
Iowa	25.1	Montana	9.0
Texas	24.4	New Jersey	8.8
Oklahoma	23.8	Washington	8.5
North Carolina	23.2	Mississippi	8.2
Minnesota	22.0	Virgin Islands	7.8
Michigan	21.8	Louisiana	6.3
North Dakota	19.2	Kentucky	6.1
Florida	18.2	South Carolina	6.0
South Dakota	17.8	Wisconsin	5.4
Puerto Rico	17.7	Connecticut	5.3
Rhode Island	16.7	Maryland	5.2
Oregon	16.5	Pennsylvania	5.1
Virginia	16.3	Hawaii	5.0
Arizona	16.0	New York	4.8
Arkansas	15.5	California	4.7
New Mexico	15.0	Illinois	4.5
Missouri	14.0	Maine	4.4
Tennessee	13.0	Pacific Tr. Territories	4.3
Idaho	12.2	West Virginia	3.9
Nevada	12.1	Delaware	3.8
Alabama	11.5	Utah	3.4
Colorado	11.3	Massachusetts	2.9
Wyoming	11.1	New Hampshire	2.9
Vermont	9.8	American Samoa	0.0

the percent is less than half the national average: Connecticut (5.3 percent), Maryland (5.2 percent), Pennsylvania (5.1 percent), Hawaii (5.0 percent), New York (4.8 percent), California (4.7 percent), Illinois (4.5 percent), Maine (4.4 percent), West Virginia (3.9 percent), Delaware (3.8 percent), Utah (3.4 percent), Massachusetts (2.9 percent), and New Hampshire (2.9 percent). All but four of these are in the East, chiefly in the heavily industrialized Northeast.

Secondary work study vocational education enrollment. Among the many educational tragedies of the Nation are the students who drop out of school to go to work but are not adequately prepared for work. Many of these youth need employment in order to stay in school. Consequently the Vocational Education Amendments of 1968 made provision for the employment of youth who were enrolled in vocational education and who needed such employment in order to stay in school, or for employment of youth who would return to school to enroll in vocational education programs.

Nationally and in forty-five of the States, fewer than one percent of secondary vocational education students are in such work study programs; see Table 5A. The highest percent in any State is 1.86 in Rhode Island. The District of Columbia has 1.81 percent; the other four States with more than one percent are Hawaii (1.75 percent), Alaska (1.65 percent), Tennessee (1.39 percent), and Vermont (1.08 percent).

Work study has been plagued by two basic problems. First, the funding available has not been sufficient. Second, States have reacted to this provision of vocational education with extreme variation, several ignoring it entirely.

The most convincing arguments for work study have been made on the basis of subjective data, from persons who see it as a means to aid would-be dropouts. These programs need further study in order to identify their real value and to account for the failure of States to take greater advantage of this provision of the total vocational program.

Post-secondary vocational education enrollment. In-school enrollment in vocational education beyond high school is a comparatively recent development. In most States, post-secondary institutions with a potential for (and interest in) vocational education did not exist prior to the National Defense Education Act (NDEA) of 1958. Enrollment then grew significantly after the Vocational Education Act of 1963 and was further stimulated by the Vocational Education Amendments of 1968.

As of 1970-71, 12.5 percent of the total national enrollment in vocational education was at the post-secondary level; Table 6A. California had the highest percent of post-secondary enrollment (28.1 percent), and Vermont the lowest (1.4 percent). For Vermont, however, only those programs administered through the State Department of Vocational Education are included in the statistics, and there are other post-secondary programs in community colleges and State colleges that should have been included. It is altogether possible that unreported data would change the picture in other States also.

All of the States are challenged to expand post-secondary enrollment in vocational education due to the general requirements of an expanding national technology.

TABLE 5A

Secondary Work Study Vocational Education Enrollment as a Percent of Total Secondary Vocational Education Enrollment, 1970-71

States	Total Secondary Vocational Education Enrollment	Total Secondary Work Study Vocational Education Enrollment	Percent of Total Secondary Vocational Education Enrollment
U.S. TOTAL	5,157,010	22,346	.43
Alabama	89,061	346	.39
Alaska	8,494	140	1.65
Arizona	50,310	43	.09
Arkansas	53,996	378	.70
California	540,474	1,397	.26
Colorado	45,998	166	.36
Connecticut	78,191	250	.32
Delaware	27,439	158	.58
Dist. of C.	5,681	103	1.81
Florida	201,016	1,564	.78
Georgia	157,829	477	.30
Hawaii	23,040	404	1.75
Idaho	21,844	32	.15
Illinois	432,217	838	.19
Indiana	86,479	283	.33
Iowa	50,211	89	.18
Kansas	38,468	377	.98
Kentucky	87,872	608	.69
Louisiana	126,251	267	.21
Maine	16,458	0	0.00
Maryland	100,668	411	.41
Massachusetts	95,411	583	.61
Michigan	164,234	1,352	.82
Minnesota	104,837	0	0.00
Mississippi	54,729	402	.73

TABLE 5A Cont'd

States	Total Secondary Vocational Education Enrollment	Total Secondary Work Study Vocational Education Enrollment	Percent of Total Secondary Vocational Education Enrollment
Missouri	98,547	481	.49
Montana	16,707	63	.38
Nebraska	38,336	134	.35
Nevada	12,596	54	.43
New Hampshire	18,378	67	.36
New Jersey	181,476	1,741	.96
New Mexico	35,305	207	.59
New York	445,602	1,300	.29
N. Carolina	161,697	363	.22
N. Dakota	16,470	65	.39
Ohio	181,937	901	.50
Oklahoma	60,856	455	.75
Oregon	55,022	103	.19
Pennsylvania	184,619	1,029	.56
Rhode Island	12,026	224	1.86
S. Carolina	70,655	323	.46
S. Dakota	14,331	67	.47
Tennessee	95,472	1,326	1.39
Texas	306,570	465	.15
Utah	65,131	242	.37
Vermont	9,601	104	1.08
Virginia	129,770	605	.47
Washington	111,681	239	.21
W. Virginia	33,161	218	.66
Wisconsin	57,017	0	0.00
Wyoming	11,851	32	.27
Guam	430	6	.43
Puerto Rico	65,032	798	1.23
Virgin Isl.	1,744	7	.40
Am. Samoa	1,095	6	.55
Pac. Tr. Terr.	2,683	53	1.98

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 5B

Rank Order of States by Percent of Work Study Enrollment to Total Secondary Vocational Education Enrollment,1970-71

U.S. MEAN = .43

State	Percent	State	Percent
Pacific Tr. Territories	1.98	Guam	.43
Rhode Island	1.86	Maryland	.41
Dist of Columbia	1.81	Virgin Islands	.40
Hawaii	1.75	Alabama	.39
Alaska	1.65	North Dakota	.39
Tennessee	1.39	Montana	.38
Puerto Rico	1.23	Utah	.37
Vermont	1.08	Colorado	.36
Kansas	.98	New Hampshire	.36
New Jersey	.96	Nebraska	.35
Michigan	.82	Indiana	.33
Florida	.78	Connecticut	.32
Oklahoma	.75	Georgia	.30
Mississippi	.73	New York	.29
Arkansas	.70	Wyoming	.27
Kentucky	.69	California	.26
West Virginia	.66	North Carolina	.22
Massachusetts	.61	Louisiana	.21
New Mexico	.59	Washington	.21
Delaware	.58	Illinois	.19
Pennsylvania	.56	Oregon	.19
American Samoa	.55	Iowa	.18
Ohio	.50	Idaho	.15
Missouri	.49	Texas	.15
South Dakota	.47	Arizona	.09
Virginia	.47	Maine	0.00
South Carolina	.46	Minnesota	0.00
Nevada	.43	Wisconsin	0.00

TABLE 6A

Post-Secondary Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Post-Secondary Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,148,506	1,141,071	12.5
Alabama	147,220	17,041	11.6
Alaska	13,147	806	6.1
Arizona	88,471	22,281	25.1
Arkansas	103,907	6,324	6.1
California	1,204,611	338,564	28.1
Colorado	95,309	14,274	14.9
Connecticut	113,694	6,674	5.9
Delaware	31,211	718	2.3
Dist. of C.	11,008	1,144	10.3
Florida	438,087	69,634	15.9
Georgia	255,887	14,814	5.8
Hawaii	38,692	7,052	18.2
Idaho	30,370	2,820	9.2
Illinois	541,178	62,186	11.4
Indiana	131,338	6,213	4.7
Iowa	127,911	13,584	10.6
Kansas	93,151	7,393	7.9
Kentucky	145,324	9,308	6.4
Louisiana	174,373	19,076	10.9
Maine	23,424	1,628	7.0
Maryland	141,774	12,758	8.9
Massachusetts	121,950	8,711	7.1
Michigan	320,055	42,632	13.3
Minnesota	219,085	20,122	9.2
Mississippi	101,768	8,268	8.1

States	Total Vocational Education Enrollment	Post-Secondary Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	11,797	8.2
Montana	27,328	3,218	11.8
Nebraska	65,318	5,362	8.2
Nevada	18,110	1,936	10.7
New Hampshire	23,082	1,820	7.9
New Jersey	292,516	20,530	7.0
New Mexico	49,178	6,078	12.3
New York	669,717	58,965	8.8
N. Carolina	376,817	42,536	11.3
N. Dakota	26,215	4,117	15.7
Ohio	389,044	13,911	3.6
Oklahoma	104,223	5,322	5.1
Oregon	101,090	15,243	15.1
Pennsylvania	337,835	27,381	8.1
Rhode Isl.	18,370	1,081	5.9
S. Carolina	93,616	3,200	3.4
S. Dakota	21,413	1,806	8.4
Tennessee	143,572	16,346	11.4
Texas	577,695	41,912	7.2
Utah	94,983	12,294	12.9
Vermont	12,593	173[1]	1.4
Virginia	243,000	15,833	6.5
Washington	226,118	58,233	25.8
W. Virginia	59,199	2,014	3.4
Wisconsin	187,637	38,136	20.3
Wyoming	14,249	1,436	10.1
Guam	2,817	57	2.0
Puerto Rico	109,809	15,545	14.2
Virgin Isl.	1,769	25	1.4
Am. Samoa	1,702	607	35.6
Pac. Tr. Terr.	2,914	132	4.5

[1] This figure includes only the practical nurse education program which is administered through the State Department of Education. There are several other post-secondary occupational programs offered in the State which should be included to give a true picture of enrollments in this area. These include the associate degree programs at Vermont Technical College, Randolph; the Allied Health programs at the University of Vermont, Burlington; and the nurse education program at Castleton State College, Castleton, Vermont. There were also individuals enrolled in the Vermont Regional Community College System. Cola D. Watson, Director, Vocational-Technical Education, 8-30-72.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 6B

Rank Order of States by Percent of Vocational Education Enrollment at the Post-Secondary Level, 1970-71

U.S. MEAN = 12.5

State	Percent	State	Percent
American Samoa	35.6	South Dakota	8.4
California	28.1	Missouri	8.2
Washington	25.8	Nebraska	8.2
Arizona	25.1	Mississippi	8.1
Wisconsin	20.3	Pennsylvania	8.1
Hawaii	18.2	Kansas	7.9
Florida	15.9	New Hampshire	7.9
North Dakota	15.7	Texas	7.2
Oregon	15.1	Massachusetts	7.1
Colorado	14.9	Maine	7.0
Puerto Rico	14.2	New Jersey	7.0
Michigan	13.3	Virginia	6.5
Utah	12.9	Kentucky	6.4
New Mexico	12.3	Alaska	6.1
Montana	11.8	Arkansas	6.1
Alabama	11.6	Connecticut	5.9
Illinois	11.4	Rhode Island	5.9
Tennessee	11.4	Georgia	5.8
North Carolina	11.3	Oklahoma	5.1
Louisiana	10.9	Indiana	4.7
Nevada	10.7	Pacific Tr. Territories	4.5
Iowa	10.6	Ohio	3.6
Dist. of Columbia	10.3	South Carolina	3.4
Wyoming	10.1	West Virginia	3.4
Idaho	9.2	Delaware	2.3
Minnesota	9.2	Guam	2.0
Maryland	8.9	Vermont	1.4
New York	8.8	Virgin Islands	1.4

Adult vocational education enrollment. Nearly one-third of all vocational education enrollments are at the adult level. These are primarily in night classes using the facilities and equipment, and sometimes the instructors, that are used for secondary or post-secondary students during the day. In some cases special skill centers have been set up to provide solely for adult classes in both daytime and evening. Since this is the major effort by vocational education to serve the needs of the unemployed and underemployed, the extent to which such persons are trained or retrained in vocational education classes is quite significant.

In several States half or nearly half of all vocational education enrollments are at the adult level. The figure drops all the way down to less than ten percent in three States. Subsequent reports of Project Baseline will examine particular circumstances behind these high and low figures. Tables 7A and 7B show these comparisons.

Manpower and Apprenticeship Training

In 1962 Congress enacted the Manpower Development and Training Act. This legislation became the first Federal law dealing with training and education requiring joint administration by two agencies -- the U.S. Department of Labor and the U.S. Department of Health, Education and Welfare. Funds are appropriated to the U.S. Department of Labor and transferred to the U.S. Department of Health, Education and Welfare for institutional training purposes. The U.S. Department of Labor through the State Employment Services identifies the unemployed and the underemployed persons needing training. The State Departments of Vocational Education translate these needs into institutional training programs. In addition, MDTA provides on-job-training programs.

In 1964 when the Economic Opportunity Act was passed a whole series of special training and assistance programs was established under the Office of Economic Opportunity. These were later placed under the Manpower Administration of the U.S. Department of Labor.

Apprenticeship training, for which the Federal Government provides no direct financial support, is given administrative assistance through the Labor Department's Bureau of Apprenticeship Training. This program dates back to 1937. Table 8 contains the numbers of trainees in each of these programs in each State.

As noted earlier, only those programs in which trainees are identified by the occupation for which they are being trained are included in this report. They are listed below with a brief description of each. Programs that are not reported by occupation are also listed at the end for identification.

1. MDTA Institutional. A program designed to combine the resources of the State Employment Service and vocational education agency within each State and focus them on the needs of the unemployed and underemployed disadvantaged. It provides support services along with basic

TABLE 7A

Adult Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Adult Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,148,506	2,850,425	31.2
Alabama	147,220	41,118	27.9
Alaska	13,147	3,847	29.3
Arizona	88,471	15,880	17.9
Arkansas	103,907	43,587	41.9
California	1,204,611	325,573	27.0
Colorado	95,309	35,037	36.8
Connecticut	113,694	28,829	25.4
Delaware	31,211	3,054	9.8
Dist. of C.	11,008	4,183	38.0
Florida	438,087	167,437	38.2
Georgia	255,887	83,244	32.5
Hawaii	38,692	8,600	22.2
Idaho	30,370	5,706	18.8
Illinois	541,178	46,775	8.6
Indiana	131,338	38,646	29.4
Iowa	127,911	64,116	50.1
Kansas	93,151	47,290	50.8
Kentucky	145,324	48,144	33.1
Louisiana	174,373	29,046	16.7
Maine	23,424	5,338	22.8
Maryland	141,774	28,348	20.0
Massachusetts	121,950	17,828	14.6
Michigan	320,055	113,189	35.4
Minnesota	219,085	94,126	43.0
Mississippi	101,768	38,771	38.1

TABLE 7A Cont'd

States	Total Vocational Education Enrollment	Total Adult Vocational Education Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	33,288	23.2
Montana	27,328	7,403	27.1
Nebraska	65,318	21,620	33.1
Nevada	18,110	3,578	20.0
New Hampshire	23,082	2,884	12.5
New Jersey	292,516	90,510	30.9
New Mexico	49,178	7,795	15.9
New York	669,717	165,146	24.7
N. Carolina	376,817	172,584	45.8
N. Dakota	26,215	5,628	21.5
Ohio	389,044	193,196	49.7
Oklahoma	104,223	38,045	36.5
Oregon	101,090	30,825	30.5
Pennsylvania	337,835	125,835	37.2
Rhode Island	18,370	5,263	28.6
S. Carolina	93,616	19,761	21.1
S. Dakota	21,413	5,276	24.6
Tennessee	143,572	31,754	22.1
Texas	577,695	229,213	39.7
Utah	94,983	17,558	18.5
Vermont	12,593	2,819	22.4
Virginia	243,000	97,397	40.1
Washington	226,118	56,204	24.9
W. Virginia	59,199	24,024	40.6
Wisconsin	187,637	92,484	49.3
Wyoming	14,249	962	6.8
Guam	2,817	2,330	82.7
Puerto Rico	109,809	29,332	26.6
Virgin Isl.	1,769	0	0.0
Am. Samoa	1,702	0	0.0
Pac. Tr. Terr.	2,914	99	3.4

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 7B

Rank Order of States by Percent of Vocational Education Enrollment at the Adult Level, 1970-71

U.S. MEAN = 31.2

State	Percent	State	Percent
Guam	82.7	California	27.0
Kansas	50.8	Puerto Rico	26.6
Iowa	50.1	Connecticut	25.4
Ohio	49.7	Washington	24.9
Wisconsin	49.3	New York	24.7
North Carolina	45.8	South Dakota	24.6
Minnesota	43.0	Missouri	23.2
Arkansas	41.9	Maine	22.8
West Virginia	40.6	Vermont	22.4
Virginia	40.1	Hawaii	22.2
Texas	39.7	Tennessee	22.1
Florida	38.2	North Dakota	21.5
Mississippi	38.1	South Carolina	21.1
Dist. of Columbia	38.0	Maryland	20.0
Pennsylvania	37.2	Nevada	20.0
Colorado	36.8	Idaho	18.8
Oklahoma	36.5	Utah	18.[illegible]
Michigan	35.4	Arizona	17.9
Kentucky	33.1	Louisiana	16.7
Nebraska	33.1	New Mexico	15.9
Georgia	32.5	Massachusetts	14.6
New Jersey	30.9	New Hampshire	12.5
Oregon	30.5	Delaware	9.8
Indiana	29.4	Illinois	8.6
Alaska	29.3	Wyoming	6.8
Rhode Island	28.6	Pacific Tr. Territories	3.4
Alabama	27.9	Virgin Islands	0.0
Montana	27.1	American Samoa	0.0

education; vocational training; and orientation, counseling and testing in schools.[1]

2. MDTA On-the-Job. A program designed to stimulate the interest of private employers in the needs of the unemployed and underemployed disadvantaged. It provides support services through State Employment Services, and training and retraining through private employers on a part-time or full-time basis.

3. Work Incentive Program (WIN). A program designed to provide the coordinated delivery of the full range of manpower programs to welfare recipients sixteen years or older, for the purpose of achieving permanent employment and stimulation by upgrading. The program makes available skill training, orientation, counseling, basic education, special work situations and employment planning, along with support services by State Employment Services, schools and employers. It is administered by State Employment Services and in some States jointly by the State Employment Service and State Department of Welfare, with Federal funds supplied through the Social Security Administration under Title 4 of the Social Security Act of 1967. WIN differs from the MDTA programs chiefly in that its target clientele are welfare recipients.

4. Concentrated Employment Program (CEP). A program designed to consolidate available resources of various MDTA programs into "packages" which can be focused on target areas meeting disadvantaged criteria. Its major purpose is the improvement of the economic status of disadvantaged people in the target area through delivery of the full range of manpower services including outreach, recruitment, work experience, vocational training, basic education and job placement. The implementing agencies are usually local community governments in urban areas and State governments in rural areas, with Federal funds supplied through the U.S. Department of Labor. CEP differs from other manpower programs chiefly in its residential target area implementation. Several of the EOA programs, including CEP, recieve Federal funds under multiple Congressional authorizations. CEP, for example, is supported under the 1962 MDTA and the 1964 EOA appropriations.

5. Neighborhood Youth Corps - Out of School (NYC-OS). An Economic Opportunity Act program designed to develop employability or facilitate the return to school for eighteen - and nineteen-year-old members of low income families who have dropped out and are unemployed. It provides State Employment Services support along with education, skill training and work experience. It is administered chiefly by community action groups, with Federal funds supplied through USDL. It differs from other manpower programs chiefly in emphasizing on-the-job work experience for youth.

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[1] This and the following definitions are based on: Manpower Programs at a Glance, Manpower Work-training Section, Employment Security Commission of Arizona, Employment Services Division. Revised June, 1971.

6. Occupational Industrialization Centers (OIC). A privately organized and directed training program with emphasis on unemployed and underemployed disadvantaged persons in minority groups. These are persons who normally would not be attracted by public agency programs. The basic program is privately funded, but some Federal funds are provided from the U.S. Department of Labor through CEP and the U.S. Office of Education.

7. New Careers. This is an Economic Opportunity Act program providing permanent employment or upgrading in the human services field through training intended to remove personal, institutional, environmental, and other barriers. It is administered by government and private non-profit agencies in the human services field with funds supplied through MDTA and EOA on a basis of ten percent matching by the employing agency. It differs from other manpower programs chiefly in its focus on service occupations.[1]

8. Public Service Careers (PSC). An Economic Opportunity Act program designed for members of poor families who are eighteen years or older and meet disadvantaged criteria. Program objectives are removal of personal, institutional, environmental and other barriers to employment in State and local governments, and independent grant-in-aid agenices. Two kinds of PSC training are included in the figures shown. The first provides support services and entry level training on-the-job in selected agenices, and the second provides support servies and upgrading on-the-job. It is administered by Federal, State, county, township or local government, with Federal funds supplied through the USDL. It differs from other manpower programs chiefly in its use of public agencies as training and employment locations.

9. Operation Mainstream. An Economic Opportunity Act program designed to provide work training, employment, and support services for chrnonically unemployed adults with poor employment prospects. It is focused primarily on rural areas with high unemployment rates which meet disadvantaged criteria. Training and work experience are provided, chiefly in commmunity betterment or beautification projects, for persons twenty-two years of age or older, including at least forty percent who are fifty-five or older. It is administered by community action groups or non-profit or public organizations with Federal funds supplied through the USDL. It differs from other manpower programs chiefly in its emphasis on the chronically unemployed, older, and rural populations.

The following programs are not reported by occupation in U.S. Department of Labor statistics.

1. Job Opportunities in the Business Sector (JOBS). A program in which employers hire, train, and retrain disadvantaged and unemployed persons in private industry.

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[1] New Careers is the only program not in the 1972 Manpower Report Of The President of those for which the U.S. Department of Labor has a printout of enrollees in Fiscal 1971. (Table F-3, p. 263, March, 1972 Report.) Efforts to learn the reason for this exception have not been successful.

2. Jobs Optional Programs (JOP). A program to stimulate the private sector into hiring, training, and retraining disadvantaged, unemployed persons.

3. Job Corps. A program developing responsible employable citizens through training in residence away from their normal environment.

4. Neighborhood Youth Corps - In School (NYC-IS). A program providing earning and useful work experience for students in low income families.

Enrollments in MDTA, EOA and Apprenticeship Programs. Trainees in U.S. Department of Labor programs in 1970-71 were divided nearly equally among apprenticeship, the group of programs established under the Economic Opportunity Act, and the Manpower Development and Training Act. Apprenticeship was highest with 274,237; EOA slightly lower with 252,544; and MDTA below that with 179,483. Enrollments in each of these groups nationally and for each State are shown in Table 8. The MDTA enrollments were in three programs: institutional, on-the-job, and part-time which on the tables is included in on-the-job figures. EOA enrollments were in seven different programs: WIN, CEP, NYC-OS, Operation Mainstream, OIC, PSC, and New Careers. Apprenticeship enrollments were in programs licensed by both the Federal Bureau of Apprenticeship Training and State Apprenticeship Councils.

The division in individual States among MDTA, EOA, and apprenticeship follows the same general pattern as the national figure but with some noticeable variations. Nationally, apprenticeship enrollments are greater than either of the other two; this is true in only twenty-two States. The national predominance is caused by substantially more apprentices in five large States: California, Illinois, Michigan, New York, and Ohio. The EOA programs have more enrollees than either MDTA or apprenticeship in twenty-one States, and substantially more in four States -- Arkansas, Maryland, Pennsylvania and West Virginia -- and the District of Columbia. MDTA enrollments are highest in the remaining seven States, sinificantly higher in Kansas and noticeably higher in Georgia.

U.S. Department of Labor EOA Programs. Table 9 shows the 1970-71 enrollment breakdown nationally and by States within the seven EOA programs for which occupational classifications of trainees are available. The largest single program by far was WIN, with 110,080 enrollees. Next was CEP with 67,792 followed by NYC-OS, 42,534; OIC, 16,855; Operation Mainstream, 10,556; PSC, 3,801; and New Careers, 926. WIN had the highest enrollment in twenty-nine States of all EOA programs. CEP was the largest program in sixteen States, substantially larger in six -- Mississsippi, Missouri, Nevada, New Hampshire, New Mexico, and North Carolina -- and the District of Columbia. In four States the largest EOA program was neither WIN nor CEP, but NYC-OS; these are Alabama, Georgia, Oklahoma, and Wyoming. One State enrolled more trainees in OIC than in the other programs.

TABLE 8

Enrollments in U.S. Department of Labor Training Programs, 1970-71

States	Enrollment in USDL Training Programs	Manpower Development Training Act Enrollment	Economic Opportunity Act Enrollment	Apprenticeship Enrollment
U.S. TOTAL	706,264	179,483[1]	252,544[2]	274,237
Alabama	6,172	2,975	668	2,529
Alaska	1,640	607	559	474
Arizona	9,535	3,402	3,611	2,522
Arkansas	7,358	1,209	4,851	1,298
California	67,358	14,980	24,411	27,967
Colorado	10,588	3,594	4,999	1,995
Connecticut	12,538	2,792	3,367	6,379
Delaware	2,273	552	349	1,372
Dist. of C.	8,202	720	4,991	2,491
Florida	18,556	2,846	6,540	9,170
Georgia	14,270	5,514	4,301	4,455
Hawaii	4,997	904	1,317	2,776
Idaho	2,587	915	1,034	638
Illinois	34,648	8,483	9,028	17,137
Indiana	14,967	4,135	3,072	7,760
Iowa	7,732	2,872	1,903	2,957
Kansas	6,467	2,920	1,781	1,766
Kentucky	11,297	3,170	4,512	3,615
Louisiana	9,424	2,615	3,175	3,634
Maine	4,536	1,012	2,177	1,347
Maryland	11,253	2,658	5,368	3,227
Massachusetts	21,495	5,989	7,546	7,960
Michigan	32,834	6,665	6,684	19,485
Minnesota	15,243	3,106	4,465	7,672
Mississippi	7,158	2,816	3,103	1,239

[1] Includes MDTA Inst., MDTA-OJT, and MDTA Part-time.

[2] Includes WIN, CEP, NYC-OS, Operation Mainstream, OIC, PSC, and New Careers.

States	Enrollments in USDL Training Programs	Manpower Development Training Act Enrollment	Economic Opportunity Act Enrollment	Apprenticeship Enrollment
Missouri	14,113	4,008	4,955	5,150
Montana	3,350	999	1,388	963
Nebraska	4,553	1,422	1,898	1,233
Nevada	2,761	822	904	1,035
New Hampshire	1,881	742	591	548
New Jersey	24,256	7,625	8,601	8,030
New Mexico	5,023	1,055	2,919	1,049
New York	55,455	12,874	19,909	22,672
N. Carolina	16,488	4,345	4,511	7,632
N. Dakota	1,849	590	646	613
Ohio	36,401	7,204	10,636	18,561
Oklahoma	10,650	3,432	4,480	2,738
Oregon	9,289	1,682	4,341	3,266
Pennsylvania	41,851	8,940	20,670	12,241
Rhode Isl.	4,489	1,065	1,654	1,770
S. Carolina	6,769	2,572	2,335	1,862
S. Dakota	2,069	505	1,072	492
Tennessee	13,166	3,611	4,366	5,189
Texas	35,457	11,101	13,901	10,455
Utah	5,343	1,469	2,023	1,851
Vermont	2,637	637	999	1,001
Virginia	13,027	3,450	3,436	6,141
Washington	15,511	3,650	6,533	5,328
W. Virginia	8,410	1,849	5,127	1,434
Wisconsin	16,630	3,580	4,728	8,322
Wyoming	1,148	491	332	325
Guam	377	NA	NA	377[3]
Puerto Rico	2,094	NA	NA	2,094
Virgin Isl.	0	NA	NA	0
Am. Samoa	0	NA	NA	0
Pac. Tr. Terr.	0	NA	NA	0
Unident. St.	8,089	2,312	5,777	0

[3] Institutional apprenticeship only.

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.
Apprenticeship Registration Actions - Total All Trades, by Region and State, Department of Labor, Chief of Reporting Operations, Financial and Management Information Systems, Manpower Administration, (The last half of year 1970 and the first half of 1971 were combined to form FY 1971).

Enrollment in U.S. Department of Labor Occupationally Reported Economic Opportunity Act Programs, 1970-71[1]

ates	Enrollment in USDL Occupationally Reported Economic Opportunity Act Programs 1970-71	Work Incentive Program Enrollment	Concentrated Employment Enrollment	Neighborhood Youth Corps Enrollment	Operation Mainstream Enrollment	Occupational Industrialization Centers Enrollment	Public Service Careers Enrollment	New Careers Enrollment
TOTAL	252,544	110,080	67,792	42,534	10,556	16,855	3,801	926
ama	668	1	207	353	72	34	1	
ka	559	377		121	37	1	23	
ona	3,611	1,130	1,744	269	360	74	34	
nsas	4,851	1,120	1,515	820	285	856	241	14
fornia	24,411	15,850	3,440	3,772	196	977	96	80
rado	4,999	3,388	810	638	22		141	16
ecticut	3,367	1,624	1,297	356	53		21	
ware	349	217	1	118			13	
. of C.	4,991	576	2,460	780	106	922	136	11
ida	6,540	2,463	2,098	1,090	123	648	71	47
gia	4,301	1,266	1,176	1,372	413	2	72	
ii	1,317	488	670	107	47		5	
o	1,034	572	1	359	100	2		
nois	9,028	5,974	1,388	560	577	1	517	11
ana	3,072	1,048	741	913	191		179	
	1,903	842	666	149	238	2	6	
as	1,781	1,052	1	352	130		246	
ucky	4,512	1,380	1,551	793	740		46	2
siana	3,175	982	756	961	279	1	161	35
e	2,177	914	781	300	181	1		
land	5,368	2,244	2,229	659	42	9	185	
achusetts	7,546	5,878	828	658	109	32	24	17
igan	6,684	4,891	516	1,213	29	7	28	
esota	4,465	1,362	1,464	330	355	833	39	82
issippi	3,103	541	1,486	836	166	2	72	

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[1] Lack of documentation for all enrollees in these programs and computer rejection rroneously prepared documentation makes the figures shown in some EOA programs much r than they actually are.

States	Enrollment in USDL Occupationally Reported Economic Opportunity Act Programs 1970-1971	Work Incentive Program Enrollment	Concentrated Employment Enrollment	Neighborhood Youth Corps Enrollment	Operation Mainstream Enrollment	Occupational Industrialization Centers Enrollment	Public Service Careers Enrollment	New Careers Enrollment
souri	4,955	1,193	2,649	482	444	94	80	13
tana	1,388	456	497	213	192	2	28	
raska	1,898	359	468	120	145	796	10	
ada	904	99	519	154	132			
Hampshire	591		486	89	15		1	
Jersey	8,601	3,061	3,745	735	203	802	51	4
Mexico	2,919	507	1,698	455	226	1	32	
York	19,909	12,198	3,926	3,270	329	13	173	
Carolina	4,511	561	2,313	1,400	168		5	64
Dakota	646	376		107	148		15	
o	10,636	4,639	2,531	1,676	600	1,131	58	1
ahoma	4,480	461	1,209	1,272	386	1,082	70	
gon	4,341	2,442	410	1,392	54	3	40	
nsylvania	20,670	7,691	6,088	2,056	190	4,591	3	51
de Island	1,654	986	564	73		12	19	
Carolina	2,335	367	975	728	163	11	60	31
Dakota	1,072	603	5	167	223	3	71	
nessee	4,366	598	1,846	1,168	649	3	65	37
s	13,901	2,233	6,655	2,795	737	1,313	154	14
h	2,023	1,700		227	56	3	37	
mont	999	701	1	141	60	11	65	20
ginia	3,436	1,176	761	840	85	513		61
hington	6,533	3,125	770	1,552	170	650	187	79
Virginia	5,127	3,686	1	915		414	95	16
consin	4,728	1,977	1,826	360		516	49	
ming	332	155	1	158	17			1
m	NA	NA	NA	NA	NA	NA	NA	NA
rto Rico	NA	NA	NA	NA	NA	NA	NA	NA
gin Isl.	NA	NA	NA	NA	NA	NA	NA	NA
dent. States	5,777	2,550	22	2,110	313	487	76	219

rce: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

Bureau of Indian Affairs Programs

The Bureau of Indian Affairs operates its own school system for Indian students who live on reservations without access to local public schools and for many Indian students who need special assistance. In 1970-71 there were twenty-eight secondary schools in fourteen States with a combined total enrollment of 12,201 students in grades nine through twelve. The BIA also operates three post-secondary schools (grades thirteen and fourteen) in three States with a combined enrollment of 1,376, and in September, 1971, it opened the Southwestern Indian Polytechnic Institute, with an enrollment of 450. The breakdown of enrollments by grade is shown in Table 10.

Most of the BIA's educational system is academic, but it does contain substantial training for skilled employment in a number of States. Table 11 represents an attempt to determine the number of Indian students in BIA schools, grades nine through fourteen, who are enrolled in job training or vocationally oriented programs and the percent this represents of the total. Incomplete data, largely subjective and impossible to substantiate, showed that 6,130 students were enrolled in such programs in 1970-71. This represents 45.15 percent of the total in these grades.[1]

At the adult level the major emphasis is on preparation for employment, and these programs are administered by the Area and Field Employment Aissistance Officers. Table 12 shows both enrollments and completions for 1970-71 of adults receiving institutional vocational training service, with the total who completed training 2,477. It was also reported that an additional 12,177 Indian adults received training, and another 2,222 were enrolled in OJT programs, however, these figures could not be substantiated.

Non-Federally Reported Programs

Not all of the programs in public secondary schools which might be identified as vocational education are being reported, for reasons discussed in Chapter X. They are found for the most part in two areas of the school curriculum: general business or office occupations, and industrial arts. A third and much smaller area is general agriculture. Not all general business or office occupations, industrial arts, or general agriculture courses would qualify as vocational education; but apparently a significant number of them provide some training useful to students seeking initial employment and pursuing career objectives. There are general office occupations and industrial arts programs in a number of States in which students enroll for one-, two-, or three-year preparation for

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[1] It is possible that additional students in BIA elementary schools were receiving job training or vocationally oriented instruction, but this could not be determined at the present time.

TABLE 10

Enrollment by Grade in Schools Operated by the Bureau of Indian Affairs, 1970-71

Areas	Nine	Ten	Eleven	Twelve	Ungraded Secondary	Thirteen	Fourteen	Total
TOTALS	3,405	3,287	2,890	2,522	97	1,039	337	13,577
Aberdeen ND-SD	693	604	432	338	0	8	0	2,075
Alburquerque NM	120	123	119	108	0	50	13	533
Anadarko OK-KS	316	384	330	341	0	968	324	2,663
Billings MT	64	23	34	33	0	0	0	154
Cherokee NC	79	93	54	54	0	0	0	280
Choctaw MS	78	65	48	51	0	0	0	242
Juneau AK	198	206	222	183	16	0	0	825
Miccosukee[1] MS	0	0	0	0	0	0	0	0
Muskogee OK	136	128	111	81	0	0	0	456
Navajo AZ-NM-UT	1,020	914	870	643	0	13	0	3,460
Phoenix AZ-CA-NV	509	511	477	452	81	0	0	2,030
Portland OR	192	236	193	238	0	0	0	859
Seminole[1] FL	0	0	0	0	0	0	0	0

[1] Elementary school only.

Source: Statistics Concerning Indian Education, U.S. Department of the Interior, Bureau of Indian Affairs, U.S. Office of Education Program, Washington, D.C., 1970-71.

TABLE 11

Secondary and Post-Secondary Enrollment In BIA Boarding and Day Schools, 1970-71

States[1]	Total Enroll-ment Grades 9-14	Vocational Education and Vocationally Oriented Enrollment	Percent Vocational Education and Vocationally Oriented
Total	13,577	6,130	45.15
Alaska	825	337	40.84
Arizona	1,593	562	35.28
California	513	503	98.00
Kansas	1,279	263	20.56
Mississippi	242	NA	NA
Montana	154	NA	NA
Nevada	557	520	93.35
New Mexico	1,514	1,110	73.31
North Carolina	280	NA	NA
North Dakota	689	356	51.66
Oklahoma	2,663	938	35.22
Oregon	859	603	70.19
South Dakota	1,389	505	36.35
Utah	1,020	433	42.45

[1] States mean the State in which the schools are located as opposed to area, sometimes an area serves more than one State.

Source: Statistics Concerning Indian Education, Department of the Interior, Bureau of Indian Affairs, U.S. Office of Education Programs, Washington, D.C., 1970-71.
Vocational education and vocationally oriented enrollments were obtained by phone or mail from schools in which these data were available. In some schools no response could be obtained.

TABLE 12

Summary of Adult Vocational Training Services (Institutional) Within BIA Areas and Field Employment Assistance Offices, 1970-71

States	Total Enrollment	Completed	Percent	Discontinued	Percent
Total	7,228	2,477	34.27	1,765	24.41
Alaska	308	134	43.50	111	37.03
Arizona	612	187	30.55	139	22.71
California	2,199	938	42.66	473	21.51
Colorado	459	141	30.72	114	24.84
Dist. of C.	3	1	33.33	0	0
Florida	3	3	100.00	0	0
Illinois	321	140	43.60	90	28.00
Minnesota	557	192	34.47	170	30.50
Mississippi	7	0	0	0	0
Montana	156	48	30.76	43	27.60
New Mexico	256	66	25.78	57	22.27
N. Carolina	12	5	41.66	4	33.35
N. Dakota	376	81	21.54	147	39.00
Ohio	75	22	29.33	21	28.00
Oklahoma	1,050	210	20.00	249	23.71
Oregon	390	110	28.20	75	19.23
Texas	444	199	44.81	72	16.21

Source: Annual Statistical Summary, U.S. Department of the Interior, Bureau of Indian Affairs, Division of Employment Assistance, Washington, D.C., 1971.

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TABLE 13

Enrollment and Percent of Secondary Students Receiving Some Form of Occupationally Related Education in Thirty States, 1970-71

States	Total Secondary Enrollment	Secondary Students in Federally Reported Vocational Education	Percent	FEDERALLY REPORTED VOCATIONAL EDUCATION				OTHER OCCUPATIONALLY RELATED PROGRAMS						Total Federally Reported Vocational Education & Other Occupationlly Related Programs (Minus Consumer & Homemaking)	Percent	Total Federally Reported Vocational Education & Other Occupationally Related Programs (Including Consumer & Homemaking)	Percent
				Total Enrollment Consumer & Homemaking	Percent	Total Enrollment Minus Consumer & Homemaking	Percent	Industrial Arts Enrollment	Percent	General Business Enrollment	Percent	General Agriculture Enrollment	Percent				
U.S. TOTAL	8,729,482[2]	3,373,303	39[3]	1,304,788	15	2,068,515	24	1,785,322	20	1,210,473	14	13,492	.2	5,077,802	58	6,382,590	73
Alaska	18,134	8,494	47	1,985	11	6,509	36	4,600	25	3,000	17	0	0.0	14,109	78	16,094	89
Arizona	136,897	50,310	37	28,072	21	22,238	16	34,870	25	16,855	12	400	.3	74,363	54	102,435	75
California	1,211,253	540,474	45	150,111	13	390,363	32	225,354	19	81,304	7	0	0.0	697,021	57	847,132	70
Florida	440,572	201,016	46	99,982	23	101,034	23	44,479	10	4,516	1	0	0.0	150,029	34	250,011	57
Georgia	317,800	157,829	50	56,123	18	101,706	32	53,825	17	57,286	18	0	0.0	212,817	67	268,940	85
Idaho	58,400	21,844	37	10,678	18	11,166	19	10,155	17	1,600	3	0	0.0	22,921	39	33,599	58
Indiana	348,560	86,479	25	45,295	13	41,184	12	96,169	28	71,394	20	3,256	1.0	212,003	61	257,298	75
Iowa	193,437	50,211	26	27,956	15	22,255	12	42,659	22	94,125	49	0	0.0	159,039	82	186,995	97
Kentucky	205,690	87,872	43	39,004	19	48,868	24	30,062	15	51,580	25	230	.11	130,740	64	169,744	83
Louisiana	232,008	126,251	54	52,016	22	74,235	32	31,911	14	0	0	0	0.0	106,146	46	158,162	68
Maine	67,160	16,458	25	2,336	4	14,122	21	13,714	21	11,961	18	779	.01	40,576	60	42,912	64
Maryland	260,123	100,668	39	30,159	12	70,509	27	80,032	31	73,336	28	210	.08	224,087	86	254,246	98
Minnesota	279,180	104,837	38	61,589	22	43,248	16	85,102	31	0	0	0	0.0	128,350	46	189,939	68
Mississippi	222,302	54,729	25	29,123	13	25,606	12	12,078	5	56,617	26	72	.03	94,373	43	123,496	56
Missouri	296,364	98,547	33	51,998	18	46,549	16	65,782	22	17,602	6	127	.04	130,060	44	182,058	61
N. Hampshire	44,730	18,378	41	5,791	13	12,587	28	1,600	4	1,955	4	75	.2	16,217	36	22,008	49
New York	1,005,125	445,606	44	154,100	15	291,506	29	278,324	28	184,607	18	0	0.0	754,437	75	908,537	90
N. Carolina	357,075	161,697	45	57,100	16	104,597	29	20,186	6	100,042	28	0	0.0	224,825	63	281,925	79
N. Dakota	50,265	16,470	33	7,566	15	8,904	18	6,741	13	7,488	15	0	0.0	23,133	46	30,699	61
Oklahoma	188,506	60,856	32	25,920	14	34,936	19	44,212	24	80,469	43	511	.3	160,128	85	186,048	78
Oregon	159,286	55,022	35	20,847	13	34,175	22	29,479	19	38,485	24	3,255	2.0	105,394	66	126,241	79
Pennsylvania	709,348	184,619	26	35,854	5	148,765	21	209,532	30	196,056	28	2,460	.34	556,813	79	592,667	84
Rhode Island	53,395	12,026	23	6,895	13	5,131	10	13,167	25	6,500	12	1,149	2.0	25,947	49	32,842	62
S. Carolina	182,425	70,655	39	23,840	13	46,815	26	11,227	6	23,722	13	0	0.0	81,764	45	105,604	58
Tennessee	262,258	95,472	36	46,273	18	49,199	19	37,325	33	0	0	0	0.0	136,524	52	182,797	70
Texas	785,825	306,570	39	160,750	20	145,820	19	176,456	22	20,411	3	0	0.0	342,687	46	503,437	64
Utah	90,839	65,131	72	19,837	22	45,294	50	20,572	23	0	0	0	0.0	65,866	73	85,703	94
Virginia	404,509	129,770	32	38,265	10	91,505	23	44,915	11	3,366	1	0	0.0	139,786	35	178,051	44
W. Virginia	121,082	33,161	27	11,586	10	21,575	18	7,994	7	3,248	3	0	0.0	32,817	27	44,403	37
Wyoming	27,494	11,851	43	3,737	14	8,114	30	2,800	10	2,948	11	968	4.0	14,830	54	18,567	68

[1] The thirty States in this table are those in which non-duplicated figures could be obtained.

[2] This total represents all secondary students grades 9-12 (vocational education plus all others).

[3] For all fifty States, District of Columbia and the territories, this percent is 37.7

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
Total School Enrollments gathered by Project Baseline.

the same occupations as students in vocational education programs.[1]

Table 13 contains data from thirty States showing relative numbers of students enrolled in such programs. The enrollments here are not limited to full-year or multiple-year occupational training programs but include all general business, industrial arts, and general agriculture at the secondary level which could be identified. They include craft courses, exploratory programs, and personal improvement classes since there was no way of making a distinction between occupational and non-occupational training in these programs. Efforts will be made to do so in Project Baseline reports in subsequent years. The data here, however, represent additional enrollments, not duplicate enrollments, either between these programs or with reported vocational education. They are presented simply to show the relative size of this unreported group in secondary education and thus the necessity to determine what impact its existence may have on the employment market and on public policy decisions.

(A second substantial group of non-Federally reported programs is found in private or proprietary training institutions. These cover a wide range of occupational training in the health occupations, trades, and services; the numbers of students being prepared for employment are

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[1] A spot check of six high schools in four States, and Washington, D.C., was made by Project Baseline staff after noting the existence of these unreported programs. The results of four schools in three States, which may or may not be representative of other schools and other States, were as follows:

Hightstown High School, Hightstown, N.J.: Middle class suburban area, approximately 1,200 student population. All students (100 percent) receive some kind of business courses before graduation; fifteen percent of current enrollment in general business courses, and substantially greater number currently enrolled in vocational office occupations and distributive education. All previous vocational education programs in trade and industry reclassified as industrial arts beginning 1971-72 because of conflict between school and N.J. State policy. Industrial arts currently includes four years drafting, two years power technology, two years electronics (to be increased to three years in 1972-73), three years woods (includes production methods, wood assembly line techniques), two years metals. Current industrial arts unduplicated enrollment approximately fourty-five percent of student population.

New Brunswick High School, N.J.: Lower economic area, predominately Negro. Student population approximately 2,100. Excellent vocational education program, business department the strongest in school. No data available on vocational education enrollment or general business enrollment. Industrial arts unduplicated enrollment approximately fifteen percent of student population. Industrial arts classes include general metals, general woods, power mechanics, and mechanical drawing.

Hermitage High School, Va.: Upper middle class suburb of Richmond, Va. Completely new facility, strong vocational education program, excellent shops. Enrollment in vocational business and office occupations courses approximately twenty-three percent of student population. General business courses also offered, with enrollment approximately thirteen percent of student population. No data on vocational education trade and industry enrollment, but it is substantial. Industrial arts courses include metals, woods, graphic arts (includes excellent photographic and printing instruction), and other unit (full year) courses. Industrial arts unduplicated enrollment approximately fifteen percent of student population. General business and industrial arts used as feeder courses in 10th grade for vocational education programs in 11th and 12th grades, also used as training for employment by students who do not continue in vocational education. State Superintendent of Public Instruction quoted in May, 1972, as stating that approximately thirty-three percent of Virginia high school students graduating or withdrawing this year "were not equipped with a job-entry level skill." Presumably sixty-seven percent were so equipped.

Washington, D.C. high schools: (District offices only, no individual high schools visited). Five vocational education high schools enroll nearly all vocational education students reported; elven academic high schools offer general business and office occupations courses, and industrial arts. Vocational office occupations enrollment 1971-72 (as reported) 624. Business and office occupations enrollment in academic high schools (not reported) 11,491 in January, 1972 (including approximate duplication of thirty-three percent, for actual number of students between 8,000 and 9,000). District Supervising Director of Business and Office Occupations stated no difference between courses taught in vocational high schools and academic high schools except academic enrollments not reported as vocational education. Vocational education unduplicated enrollment in 1970-71 trade and industry courses (vocational high schools) 1,533. Industrial arts unduplicated enrollment 1971-72 (data not available for 1970-71) 2,948 (not reported). Industrial arts courses include from one to three years of instruction in mechanical drawing, graphic arts, woodworking, electricity, machine shop, and auto shop (forty minutes a day, five days a week). Equipment and supplies in the industrial arts shops are in serious need of improvement, but students do use skills acquired to seek employment.

McKinley High School, Hawaii: The original high school located in downtown Honolulu, enrollment 1970-71 approximately 2,600. All business and office education courses in grades 10-12 have been classifed as vocational education; total enrollment 435. Beginning typing and personal typing not included in vocational education; enrollment 168. Vocational education trade and industry courses included power and automotive technology, graphic arts technology, and co-op industrial education. These beginning in 1970-71 are reported as part of the Introduction to Vocations Program. Enrollment was sixty-four in 1970-71 All industrial arts courses in grades 10-12 are unit (full year single subject) courses. The unreported enrollment in these courses was 459 in 1970-71.

probably significant. The National Center for Educational Statistics in the U.S. Office of Education has gathered data on proprietary schools and enrollments in each State for Fiscal year 1970-71 to be included in a directory of secondary and post-secondary institutions which offer occupational training. Subsequent national reports of Project Baseline will include such data as can be obtained on proprietary school enrollments, but they are not available at this time.)

Thirty-nine percent of all high school students in thirty States were enrolled in Federally reported vocational education programs in 1970-71. However, this includes consumer and homemaking, which is not employment-oriented. A more realistic figure reflecting vocational education at the secondary level in these States is the total excluding consumer and homemaking, twenty-four percent; see Table 13. An additional twenty percent of the high school students in these States were enrolled in industrial arts courses. Another fourteen percent were in general business courses, and a fraction of one percent in general agriculture. Altogether in these thirty States, then, fifty-eight percent of the high school students were enrolled in Federally reported vocational education or other occupationally oriented programs (excluding consumer and homemaking).

In individual States the figure ranged from more than eighty percent in Iowa, Maryland, and Oklahoma to less than forty percent in Florida, Idaho, New Hampshire, Virginia, and West Virginia. The fluctuation is somewhat greater than in Federally reported vocational education alone, ranging from twenty-seven percent to eighty-six percent in all programs compared with ten percent to fifty percent in vocational education. The range among these thirty States in unduplicated industrial arts enrollments is zero to thirty-three percent, with half the States having twenty percent or more of their high school students enrolled in industrial arts courses. The range in general business is greater, from zero to forty-nine percent; and while only nine of these States have twenty percent or more enrolled in general business, two have more than forty percent.

It is significant that in these thirty States -- representing a complete cross-section of the Nation geographically, sociologically, economically, and in concentrations of population -- more than one-third of all high school students were enrolled in non-Federally reported programs, some of which might be preparing them for jobs, in addition to the one-fourth in Federally reported vocational education programs.

Expansion of Vocational Education, Manpower, and Apprenticeship Training

The absolute expansion of Federally reported programs that have trained persons for employment during the past decade is evident. A somewhat more meaningful measure of that expansion is found by comparing enrollments per 1,000 population today with ten years ago.

Expansion of MDTA and EOA training in programs administered by the U.S. Department of Labor must be measured from a base of zero, because these programs did not exist ten years ago.[1] Percentages of change compared with vocational education and apprenticeship training, therefore, would be greatly inflated and meaningless. Acutal growth per 1,000 population can be compared between programs and between States in each program, and that is the measurement used.

All programs. Nationally the total growth rate in all reported programs from 1961-71 was 116.4 percent, or an average of 11.6 percent per year. It varied in individual States from a high of 657.9 percent in New Jersey to a low of -16.4 percent in South Carolina. Since vocational education enrollments constitute more than ninety percent of the totals, variations among the States in total growth rates must be accounted for primarily by variations in vocational education growth rates. A comparison of States showing 1970-71 enrollment per 1,000 population is found in Chapter IV.

Vocational education expansion has been the result of a number of factors, including increasing demand for skilled employment and a relative decline in demand for the unskilled, greater emphasis on occupational preparation and career education in the schools, and growth of population. But undoubtedly the major influence has been the Federal vocational education legislation of 1963 and 1968 together with the increasing annual appropriations based on that legislation. It must be noted, however, that the new legislation expanded and liberalized the defintion of vocational education to include for the first time many programs already in existence. Thus the actual growth may have been somewhat less than shown by enrollment figures. On the other hand, it is quite possible that continued under-reporting of expanding programs in office occupations and trade and industry courses has tended to offset the numbers gained through the inclusion of already existing programs.

Total vocational education. In order to show enrollment growth rates in vocational education among the States, the enrollment per 1,000 population calculated in 1961-62 (Study by the President's Panel of Consultants on Vocational Education) and in 1966-67 (Study by the President's Advisory Council on Vocational Education) are compared with the data obtained by Project Baseline for the year 1970-71. These are shown in Table 14A.

The percent of change in the enrollment per 1,000 population from 1961-71 is significant because it shows, in part, the influence of the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 upon vocational education. Increased Federal funding, and the flexibility introduced into the Acts by Congress, helped produce 110.4 percent of change in enrollment per 1,000 population during the decade.

Variations among the States in percent of change, shown in

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[1] A few manpower training programs under the Area Redevelopment Act existence in 1960-61, but are not covered by this report.

Table 14B and Figure 1, are so great that they can be examined only with several observations in mind, in addition to those already cited concerning under-reporting and liberalization of the defintion of vocational education. Both 1960-61 and 1970-71 data were nonuniform in their compilation; the lack of uniformity may have been much greater at the beginning of the decade than at the end. In addition since passage of the Vocational Education Act of 1963, leadership resources and effort have been diverted from direct program support to updating and improving programs and making them available to larger numbers of students with special needs. These developments have probably varied among the different States. Also, population changes, variations in State and local funds available, and public attitudes about vocational education conceivably have affected the rate of growth differently from one State to another. And, elements of personal leadership, administration and effective use of resoures must be recognized.

New Jersey leads all other States by a wide margin in its vocational education growth rate of the past ten years (716 percent), followed by Alaska (403 percent), Maryland (335 percent), Illinois (331 percent), and New Mexico (307 percent). At the other end of the list are South Carolina, the only State with a decline in vocational education enrollments per 1.000 population (-21.5 percent), and Mississippi and Arkansas with an increase of less than ten percent.

Placement and Follow-up

The most direct benefit from manpower training and vocational education and the final measurement of success, is employment in the field of training. Direct benefits may be delayed until after further education, military service or several years of marriage. There also are important indirect benefits such as transfer of the abilities acquired from one occupational area to another. It could be argued, for example that office occupations or nurse training is as valuable to the community college graduate six years later, with appropriate refresher study, as it would have been immediately after graduation if the intervening years were spent in getting married and starting a family. And it could be argued that vocational agriculture, at the secondary level can be excellent preparation for studying engineering technology, or sales management.

Immediate benefits, direct and indirect, are often related to the effectiveness of the training institutions in placing their graduates when they leave. Many schools have placement programs operated either through teachers or counseling personnnel or other agencies, and the students placed in this way reflect immediately the success of their programs. A later follow-up of all students and trainees, however, is necessary to know the complete results; and follow-up information is needed in considerable depth and variety. The U.S. Office of Education requires that all completions (those who graduate or drop out of school with job entry skills) during a school year be followed up in the next fall to determine their employment status at that time.

A number of States have adopted State-wide follow-up data systems which attempt to supply this information, and in a few States

TABLE 14A

Total Vocational Education Enrollment Per 1,000 Population and Percent of Change, 1961-71

States	Total Vocational Education Enrollment per 1,000 Population 1960-61	Total Vocational Education Enrollment per 1,000 Population 1965-66	Total Vocational Education Enrollment per 1,000 Population 1970-71	Percent of Change per 1,000 Population 1961-71
U.S. TOTAL	21.1[1]	31.3[1]	44.4[1,2]	110.4
Alabama	29.9	35.6	42.7	42.8
Alaska	8.7	24.1	43.8	403.4
Arizona	21.3	28.6	49.8	133.8
Arkansas	49.4	47.8	54.0	9.3
California	27.9	40.5	60.4	116.5
Colorado	30.3	37.5	43.2	42.6
Connecticut	12.3	19.2	37.5	204.9
Delaware	23.1	26.2	56.9	146.3
Dist. of C.	11.2	11.7	14.6	30.4
Florida	26.0	47.1	64.5	148.1
Georgia	40.2	43.9	55.8	38.8
Hawaii	28.9	23.3	50.3	74.0
Idaho	23.4	31.4	42.6	82.1
Illinois	11.3	14.4	48.7	331.0
Indiana	15.5	16.0	25.3	63.2
Iowa	22.6	28.2	45.3	100.4
Kansas	18.4	23.6	41.5	125.5
Kentucky	21.6	29.4	45.1	108.8
Louisiana	28.5	30.9	47.9	68.1
Maine	9.7	10.2	23.6	143.3
Maryland	8.3	37.9	36.1	334.9
Massachusetts	13.1	26.7	21.4	63.4
Michigan	17.4	31.9	36.1	107.5
Minnesota	27.6	36.0	57.6	108.7
Mississippi	44.0	41.1	45.9	4.3

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[1] Population figures not available for Guam, Puerto Rico, Virgin Islands, American Samoa, and Pacific Trust Territories, so they are not included.

[2] This column based on Table 30A of this Report.

TABLE 14A Cont'd

States	Total Vocational Education Enrollment per 1,000 Population 1960-61	Total Vocational Education Enrollment per 1,000 Population 1965-66	Total Vocational Education Enrollment per 1,000 Population 1970-71	Percent of Change per 1,000 Population 1961-71
Missouri	15.5	21.0	30.7	98.1
Montana	14.3	20.5	39.4	175.5
Nebraska	22.1	34.5	44.0	99.1
Nevada	26.5	34.4	37.1	40.0
New Hampshire	12.2	12.9	31.3	156.6
New Jersey	5.0	11.9	40.8	716.0
New Mexico	11.9	20.3	48.4	306.7
New York	11.2	27.4	36.7	227.7
N. Carolina	31.5	47.4	74.1	135.2
N. Dakota	26.7	32.8	42.4	58.8
Ohio	11.8	20.3	36.5	209.3
Oklahoma	31.4	32.1	40.7	29.6
Oregon	18.8	25.9	48.3	156.9
Pennsylvania	9.1	17.0	28.6	214.3
Rhode Isl.	9.9	9.0	19.4	96.0
S. Carolina	46.0	49.8	36.1	-21.5
S. Dakota	20.0	24.3	32.2	61.0
Tennessee	30.8	30.8	36.6	18.8
Texas	38.3	47.5	51.6	34.7
Utah	30.0	50.6	89.7	199.0
Vermont	15.9	37.6	28.3	78.0
Virginia	26.9	35.7	52.3	94.4
Washington	37.9	55.1	66.3	74.9
W. Virginia	16.8	27.2	33.9	101.8
Wisconsin	26.0	42.9	42.5	63.5
Wyoming	20.9	24.5	42.9	105.3
Guam	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA	NA

Sources: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971

1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-BI U.S. Summary.

Vocational Education - The Bridge Between Man and His Work, General Report of the Advisory Council on Vocational Education, U.S. Office of Education, Washington, D.C., 1968.

Education for a Changing World of Work, Report of the Panel of Consultants on Vocational Education, U.S. Office of Education, Washington, D.C., 1964.

TABLE 14B

Rank Order of States by Percent of Change in Total Vocational Education Enrollment per 1,000 Population, 1961-71

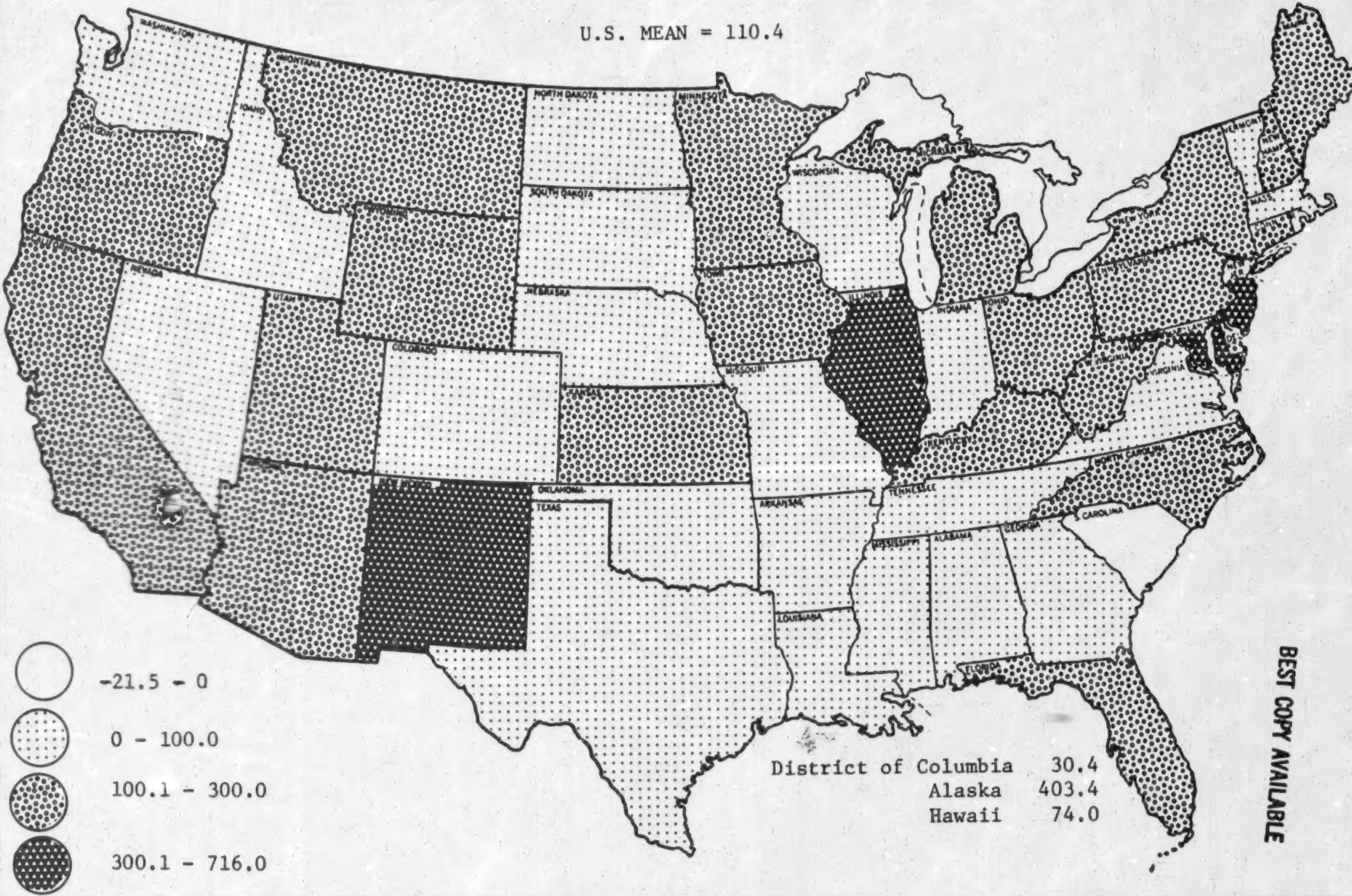
U.S. MEAN = 110.4

State	Percent	State	Percent
New Jersey	716.0	Rhode Island	96.0
Alaska	403.4	Virginia	94.4
Maryland	334.9	Idaho	82.1
Illinois	331.0	Vermont	78.0
New Mexico	306.7	Washington	74.9
New York	227.7	Hawaii	74.0
Pennsylvania	214.3	Louisiana	68.1
Ohio	209.3	Wisconsin	63.5
Connecticut	204.9	Massachusetts	63.4
Utah	199.0	Indiana	63.2
Montana	175.5	South Dakota	61.0
Oregon	156.9	North Dakota	58.8
New Hampshire	156.6	Alabama	42.8
Florida	148.1	Colorado	42.6
Delaware	146.3	Nevada	40.0
Maine	143.3	Georgia	38.8
North Carolina	135.2	Texas	34.7
Arizona	133.8	Dist. of Columbia	30.4
Kansas	125.5	Oklahoma	29.6
California	116.5	Tennessee	18.8
Kentucky	108.8	Arkansas	9.3
Minnesota	108.7	Mississippi	4.3
Michigan	107.5	South Carolina	-21.5
Wyoming	105.3		
West Virginia	101.8		
Iowa	100.4		
Nebraska	99.1		
Missouri	98.1		

FIGURE 1

COMPARISON OF STATES BY PERCENT OF CHANGE IN VOCATIONAL EDUCATION ENROLLMENT PER 1,000 POPULATION, 1961-71

U.S. MEAN = 110.4


-21.5 - 0
0 - 100.0
100.1 - 300.0
300.1 - 716.0
WASHINGTON
OREGON
IDAHO
MONTANA
NORTH DAKOTA
SOUTH DAKOTA
MINNESOTA
WISCONSIN
MICHIGAN
NEVADA
UTAH
COLORADO
NEBRASKA
KANSAS
IOWA
ILLINOIS
INDIANA
OHIO
MISSOURI
KENTUCKY
NEW YORK
PENNSYLVANIA
VERMONT
MASS.
VIRGINIA
W. VIRGINIA
NORTH CAROLINA
S. CAROLINA
TENNESSEE
GEORGIA
ALABAMA
MISSISSIPPI
ARKANSAS
LOUISIANA
OKLAHOMA
TEXAS
NEW MEXICO
FLORIDA

District of Columbia	30.4
Alaska	403.4
Hawaii	74.0

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the follow-up effort is much more detailed and complete than required by the Federal Government. These kinds of data, however, are difficult and expensive to collect. As a general rule, they are far from satisfactory, varying from little more than estimates in many States to perhaps valid but limited statistical studies in many others. A few States are doing quite well in acquiring accurate information about their former student but nationally the information available must be treated with caution. When no more data are collected than are required by the U.S. Office of Education, a complete analysis is impossible.

Table 15 shows the number of vocational education completions for FY 1970, the number in 1971 who were reported to be continuing their education, the number available for work and the number employed in the field for which trained or a related field. Tables 16, 17, and 18 contain these data broken down into the secondary, post-secondary, and adult levels. Two percentages are included: the percent of completions who were employed in the field for which trained or a related field, and the percent of completions who were actually available for work and were so employed. Ranking high in both respects for all programs were Alaska, the District of Columbia, Georgia, Maryland, Montana, New Mexico, North Carolina, and North Dakota. Variations among the States ranged from seventy-eight percent and seventy-four percent of completions who were employed (Alaska and New Mexico, respectively) to five percent (Utah). The percent of students available for work and employed is a more reliable measure of success, and this was invariably higher in all States. The variation here ranged from ninety percent and higher (Wyoming, ninety-seven percent; Maryland, ninety-five percent; the District of Columbia, Montana and New Mexico, ninety-four percent; Georgia and North Carolina, ninety-three percent; Alaska, ninety-one percent; and Louisiana and North Dakota, ninety percent) to less than fifty percent in four States (Massachusetts, forty-nine percent; Nevada thirty-four percent; Pennsylvania, thrity-seven percent; and Utah, thirty-six percent).

At the secondary level, the national percentages are somewhat under those for all programs combined. The percentages are highest at the post-secondary level; the percentages at the adult level are below those at the post-secondary level but above those for all programs combined. State variations are different in each case, but for the most part the patterns are similar.

It must be emphasized again in noting the variations in Tables 15 through 18 that virtually no uniformity exists in the compilation of follow-up data among the States. The variations as shown may result more from difference in the degree of accuracy of the data than from differences in actual results. Even this is no more than a possibility, and most likely would not apply in all cases if at all.

Regardless of a lack of uniformity in the way follow-up data are compiled, there is no reason to believe that the picture they present is more favorable than actual conditions. In fact, figures resulting from inadequate follow-up systems are much more likely to be too low than too high. With this in mind, it seems impressive that more than one-half million persons, out of less than one and one-half million who completed their training in a single year, were employed in their field of training or related field. This is especially true

TABLE 15

Vocational Education Completions of Secondary, Post-Secondary and Adult Students Continuing in School, Available for Work and Employed, 1970-71

States	Completions	Continuing Education	Available For Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Completions	Number of Students Employed as a Percent of the Number Available for Work
U.S. TOTAL	1,459,580[2]	299,440	784,376	540,484	37.0	68.9
Alabama	19,557	3,447	13,738	10,258	52.5	74.7
Alaska	6,130	266	5,284	4,807	78.4	91.0
Arizona	12,143	2,317	6,659	4,339	35.7	65.2
Arkansas	11,130	1,953	7,663	5,552	49.9	72.5
California	244,489	48,807	108,347	69,493	28.4	64.1
Colorado	14,279	6,307	5,763	3,711	26.0	64.4
Connecticut	15,386	4,363	8,802	6,464	42.0	73.4
Delaware	4,629	945	2,513	1,941	42.0	77.2
Dist. of C.	1,614	152	1,139	1,066	66.0	93.6
Florida	84,060	9,699	35,240	29,027	34.5	82.4
Georgia	29,003	6,869	18,103	16,884	58.2	93.3
Hawaii[1]	NA	NA	NA	NA	NA	NA
Idaho	4,154	863	2,179	1,756	42.3	80.6
Illinois	69,449	21,273	36,988	25,283	36.4	68.4
Indiana	20,559	2,420	13,988	11,087	53.9	79.3
Iowa	11,945	3,027	8,727	5,048	42.3	57.8
Kansas	8,851	2,128	5,207	3,916	44.2	75.2
Kentucky	17,306	4,463	10,190	7,187	41.5	70.5
Louisiana	30,216	8,993	13,871	12,516	41.4	90.2
Maine	5,350	1,091	2,878	1,445	27.0	50.2
Maryland	12,832	NA	7,045	6,699	52.2	95.1
Massachusetts	21,243	3,829	14,817	7,312	34.4	49.3
Michigan	80,767	24,841	29,771	17,501	21.7	58.8
Minnesota	39,839	5,475	30,820	19,452	48.8	63.1
Mississippi	26,417	2,064	6,243	4,603	17,4	73.7

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[1] Form 3139 not submitted by Hawaii State Department of Education.

[2] Figures shown in all columns will not equal the completions column because those students whose status was unknown are not included in this table.

TABLE 15 Cont'd

States	Completions	Continuing Education	Available For Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Completions	Number of Students Employed as a Percent of the Number Available for Work
Missouri	23,692	5,185	15,116	10,203	43.1	67.5
Montana	9,154	2,801	5,376	5,037	55.0	93.7
Nebraska	9,528	2,702	5,735	4,848	50.9	84.5
Nevada	3,402	668	1,639	553	16.3	33.7
New Hampshire	1,868	388	1,029	795	42.6	77.3
New Jersey	59,099	5,639	38,028	28,579	48.4	75.2
New Mexico	13,050	1,677	10,209	9,587	73.5	93.9
New York	145,240	28,530	73,526	41,024	28.2	55.8
N. Carolina	25,907	7,732	15,370	14,308	55.2	93.1
N. Dakota	4,658	1,471	2,766	2,497	53.6	90.3
Ohio	36,853	4,142	26,790	19,254	52.2	71.9
Oklahoma	25,577	9,212	11,999	9,962	38.9	83.0
Oregon	12,995	3,404	6,211	3,266	25.1	52.6
Pennsylvania	66,400	14,008	44,144	16,174	24.4	36.6
Rhode Island	1,481	262	927	708	47.8	76.4
S. Carolina	14,175	2,938	8,292	5,838	41.2	70.4
S. Dakota	5,344	1,010	3,188	2,454	45.9	77.0
Tennessee	25,276	2,811	18,186	13,744	54.4	75.6
Texas	54,826	13,947	38,660	30,421	55.5	78.7
Utah	21,846	3,760	3,060	1,085	5.0	35.5
Vermont	2,724	517	1,602	904	33.2	56.4
Virginia	38,702	7,646	27,090	21,623	55.9	79.8
Washington	26,483	5,814	8,279	6,685	25.2	80.7
W. Virginia	11,977	1,408	5,642	3,446	28.8	61.1
Wisconsin	23,514	4,411	13,398	8,164	34.7	60.9
Wyoming	3,616	1,324	1,686	1,637	45.3	97.1
Guam	104	14	86	53	51.0	61.6
Puerto Rico	NA	NA	NA	NA	NA	NA
Virgin Isl.	188	31	134	130	69.1	97.0
Am. Samoa	202	296	99	72	35.6	72.7
Pac. Tr. Terr.	351	100	134	86	24.5	64.2

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971

TABLE 16

Vocational Education Completions of Secondary Students Continuing in School, Available for Work and Employed, 1970-71

States	Completions	Continuing Education	Available For Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Completions	Number of Students Employed as a Percent of the Number Available for Work
U.S. TOTAL	998,238[2]	255,414	506,343	326,597	32.7	64.5
Alabama	12,764	3,159	7,093	5,347	41.9	75.4
Alaska	2,364	246	1,853	1,557	65.9	84.0
Arizona	7,010	1,916	3,324	2,016	28.8	60.6
Arkansas	6,898	1,814	4,023	2,691	39.0	66.9
California	135,446	33,721	52,599	28,694	21.2	54.6
Colorado	13,017	5,585	5,545	2,250	17.3	40.6
Connecticut	13,252	3,920	7,405	5,350	40.4	72.2
Delaware	3,801	884	1,848	1,415	37.2	76.6
Dist. of C.	571	86	353	325	56.9	92.1
Florida	40,536	6,112	15,662	13,422	33.1	85.7
Georgia	24,498	6,480	14,442	13,418	54.8	92.2
Hawaii[1]	NA	NA	NA	NA	NA	NA
Idaho	2,831	760	1,207	946	33.4	78.4
Illinois	61,372	20,389	29,085	18,055	29.4	62.1
Indiana	17,215	2,420	11,041	8,382	48.7	75.9
Iowa	7,115	2,768	4,513	2,019	28.4	44.7
Kansas	5,125	1,575	2,709	1,914	37.3	70.7
Kentucky	14,826	4,306	7,939	5,229	35.3	65.9
Louisiana	24,095	8,890	9,752	8,508	35.3	87.2
Maine	4,492	1,064	2,279	1,042	23.2	45.7
Maryland	11,734	NA	6,455	6,179	52.7	95.7
Massachusetts	17,873	3,418	12,029	5,254	29.4	43.7
Michigan	58,950	22,705	21,524	11,785	20.0	54.8
Minnesota	20,948	4,430	14,616	9,891	47.2	67.7
Mississippi	5,112	1,836	2,660	1,697	33.2	63.8

[1] Form 3139 not submitted by Hawaii State Department of Education.

[2] Figures shown in all columns will not equal the completions column because those students whose status was unknown are not included in this table.

TABLE 16 Cont'd

States	Comple-tions	Contin-uing Educa-tion	Avail-able for Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Comple-tions	Number of Students Em-ployed as a Percent of the Number Available for Work
Missouri	18,675	4,703	10,887	6,443	34.5	59.2
Montana	3,487	1,658	1,228	1,154	33.1	94.0
Nebraska	6,629	2,399	3,435	2,644	39.9	77.0
Nevada	2,400	651	996	260	10.8	26.1
New Hampshire	1,331	338	648	474	35.6	73.1
New Jersey	26,481	4,177	19,550	15,308	57.8	78.3
New Mexico	6,937	1,170	4,976	4,638	66.9	93.2
New York	116,856	25,932	60,594	32,198	27.6	53.1
N. Carolina	25,907	7,732	15,370	14,308	55.2	93.1
N. Dakota	2,808	1,307	1,146	947	33.8	82.6
Ohio	31,983	3,960	22,450	15,576	48.7	69.4
Oklahoma	13,315	5,756	5,682	3,991	30.0	70.2
Oregon	9,405	3,230	3,657	1,102	11.7	30.1
Pennsylvania	49,747	11,685	32,478	10,322	20.7	31.8
Rhode Island	1,070	234	611	424	39.6	69.4
S. Carolina	11,412	2,869	6,976	4,687	41.1	67.2
S. Dakota	2,686	935	1,207	987	36.7	81.8
Tennessee	12,490	2,394	8,321	5,603	44.9	67.3
Texas	39,975	12,592	23,154	18,472	46.2	79.8
Utah	20,492	3,637	2,055	154	.8	7.5
Vermont	2,054	492	1,192	628	30.6	52.7
Virginia	31,971	7,107	21,846	17,672	55.3	80.9
Washington	21,107	5,222	3,260	2,327	11.0	71.4
W. Virginia	8,471	1,361	4,954	2,096	24.7	42.3
Wisconsin	15,517	3,753	8,526	5,690	36.7	66.7
Wyoming	2,488	1,217	810	810	32.6	100.0
Guam	54	8	59	49	90.7	83.1
Puerto Rico	NA	NA	NA	NA	NA	NA
Virgin Isl.	188	31	134	130	69.1	97.0
Am. Samoa	121	289	59	39	32.2	66.1
Pac. Tr. Terr.	336	91	126	78	23.2	61.9

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education, & Welfare, D.C., FY 1971

TABLE 17

Vocational Education Completions of Post-Secondary Students Continuing in School, Available for Work and Employed, 1970-71

States	Completions	Continuing Education	Available for Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Completions	Number of Students Employed as a Percent of the Number Available for Work
U.S. TOTAL	304,267[2]	35,359	195,114	153,330	50.4	78.6
Alabama	4,400	273	4,715	3,737	84.9	79.3
Alaska	444	13	368	332	74.8	90.2
Arizona	3,281	354	2,070	1,503	45.8	72.6
Arkansas	2,550	48	2,455	2,034	79.8	82.9
California	109,043	15,086	55,748	40,799	37.4	73.2
Colorado	1,262	722	218	1,461[3]	115.8	670.2
Connecticut	1,987	443	1,292	1,042	52.4	80.7
Delaware	715	53	566	486	68.0	85.9
Dist. of C.	232	53	172	137	59.1	79.7
Florida	23,339	2,291	10,279	7,884	33.8	76.7
Georgia	4,505	389	3,661	3,466	76.9	94.7
Hawaii[1]	NA	NA	NA	NA	NA	NA
Idaho	1,226	103	878	722	58.9	82.2
Illinois	5,873	854	6,721	6,245[3]	106.3	92.9
Indiana	3,146	0	2,788	2,570	81.7	92.2
Iowa	4,830	259	4,214	3,029	62.7	71.9
Kansas	2,481	432	1,822	1,517	61.1	83.3
Kentucky	2,261	157	2,032	1,739	76.9	85.6
Louisiana	3,284	103	2,787	2,720	82.8	97.6
Maine	744	27	552	367	49.3	66.5
Maryland	1,098	NA	590	520	47.4	88.1
Massachusetts	2,597	395	1,949	1,5[illegible]	59.8	79.7
Michigan	14,484	1,446	7,240	5,310	36.7	73.3
Minnesota	15,565	929	13,121	7,680	49.3	58.5
Mississippi	2,207	208	1,820	1,572	71.2	86.4

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[1] Form 3139 not submitted by Hawaii State Department of Education.

[2] Figures shown in all columns will not equal the completions column because those students whose status was unknown are not included in this table.

[3] Figure includes non-completing students who were employed.

States	Completions	Continuing Education	Available for Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Completions	Number of Students Employed as a Percent of the Number Available for Work
Missouri	3,018	447	2,674	2,553	84.6	95.5
Montana	1,196	259	849	798	66.7	94.0
Nebraska	2,800	295	2,215	2,119	75.7	95.7
Nevada	111	7	94	94	84.7	100.0
New Hampshire	537	50	381	321	59.8	84.3
New Jersey	9,809	980	7,534	5,608	57.2	74.4
New Mexico	5,087	364	4,532	4,299	84.5	94.9
New York	17,001	2,413	6,105	4,544	26.7	74.4
N. Carolina	NA	NA	NA	NA	NA	NA
N. Dakota	1,751	164	1,540	1,480	84.5	96.1
Ohio	3,806	159	3,357	3,002	78.9	89.4
Oklahoma	1,417	205	1,160	1,074	75.8	92.6
Oregon	3,590	174	2,554	2,164	60.3	84.7
Pennsylvania	6,712	1,699	4,338	2,905	43.3	67.0
Rhode Island	360	25	277	245	68.1	88.4
S. Carolina	2,669	68	1,224	1,090	40.8	89.1
S. Dakota	1,038	50	822	691	66.6	84.1
Tennessee	4,985	295	3,983	3,411	68.4	85.6
Texas	8,045	1,283	9,355	8,055	100.1	86.1
Utah	1,354	123	1,005	931	68.8	92.6
Vermont	134	0	143	141[4]	105.2	98.6
Virginia	2,391	249	1,866	1,568	65.6	84.0
Washington	5,376	592	5,019	4,358	81.1	86.8
W. Virginia	805	47	688	540	67.1	78.5
Wisconsin	7,997	658	4,872	2,474	30.9	50.8
Wyoming	601	93	394	394	65.6	100.0
Guam	27	6	27	4	14.8	14.8
Puerto Rico	NA	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA	NA
Am. Samoa	81	7	40	33	40.7	82.5
Pac. Tr. Terr	15	9	8	8	53.3	100.0

[4] Figure includes non-completing students who were employed.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 18

Vocational Education Completions of Adult Students Continuing in School, Available for Work and Employed, 1970-71

States	Completions	Continuing Education	Available for Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Completions	Number of Students Employed as a Percent of the Number Available for Work
.S. TOTAL	157,075[4]	8,667	82,919	59,747	38.0	72.1
labama	2,393	15	1,930	1,174	49.1	60.8
laska	3,322	7	3,063	2,918	87.8	95.3
rizona	1,852	47	1,265	820	44.3	64.8
rkansas	1,682	91	1,185	827	49.2	69.8
alifornia[1]	NA	NA	NA	NA	NA	NA
olorado[2]	NA	NA	NA	NA	NA	NA
onnecticut	147	0	105	72	49.0	68.6
elaware	113	8	99	40	35.4	40.4
ist. of C.	811	13	614	604	74.5	98.4
lorida	20,185	1,296	9,299	7,721	38.3	83.0
eorgia	NA	NA	NA	NA	NA	NA
awaii[3]	NA	NA	NA	NA	NA	NA
daho	97	0	94	88	90.7	93.6
llinois	2,204	30	1,182	983	44.6	83.2
ndiana	198	0	159	135	68.2	84.9
owa	NA	NA	NA	NA	NA	NA
ansas	1,245	121	676	485	39.0	71.7
entucky	219	0	219	219	100.0	100.0
ouisiana	2,837	0	1,332	1,288	45.4	96.7
aine	114	NA	47	36	31.6	76.6
aryland	NA	NA	NA	NA	NA	NA
assachusetts	773	16	839	504	65.2	60.1
ichigan	7,333	690	1,007	406	5.5	40.3
innesota	3,326	116	3,083	1,881	56.6	61.0
ississippi	19,098	20	1,763	1,334	7.0	75.7

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[1] Data combined with secondary and post-secondary data. (Tables 16 and 17.)

[2] Data is combined with data on post-secondary table. (Table 17.)

[3] Form 3139 not submitted by Hawaii State Department of Education.

[4] Figures shown in all columns will not equal the completions column because hose students whose status was unknown are not included in this table.

States	Completions	Continuing Education	Available for Work	Employed in Field for which trained or Related Field	Number of Students Employed as a Percent of Total Completions	Number of Students Employed as a Percent of the Number Available for Work
Missouri	1,999	35	1,555	1,207	60.4	77.6
Montana	4,471	884	3,299	3,085	69.0	93.5
Nebraska	99	8	85	85	85.9	100.0
Nevada	891	10	549	199	22.3	36.2
New Hampshire	NA	NA	NA	NA	NA	NA
New Jersey	22,809	482	10,944	7,663	33.6	70.0
New Mexico	1,026	143	701	650	63.4	92.7
New York	11,383	185	6,827	4,282	37.6	62.7
N. Carolina	NA	NA	NA	NA	NA	NA
N. Dakota	99	NA	80	70	70.7	87.5
Ohio	1,064	23	983	676	63.5	68.8
Oklahoma	10,845	3,251	5,157	4,897	45.2	95.0
Oregon[5]	(See Footnote)					
Pennsylvania	9,941	624	7,328	2,947	29.6	40.2
Rhode Island	51	3	39	39	76.5	100.0
S. Carolina	94	1	92	61	64.9	66.3
S. Dakota	1,620	25	1,159	776	47.9	67.0
Tennessee	7,801	122	5,882	4,730	60.6	80.4
Texas	6,806	72	6,151	3,894	57.2	63.3
Utah[5]	NA	NA	NA	NA	NA	NA
Vermont	536	25	267	135	25.2	50.6
Virginia	4,340	290	3,378	2,383	54.9	70.5
Washington[6]	(See Footnote)					
W. Virginia	2,701	NA	NA	NA	NA	NA
Wisconsin[5]	NA	NA	NA	NA	NA	NA
Wyoming	527	14	482	433	82.2	89.8
Guam	23	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA	NA	NA	NA

[5] Data is combined with data on post-secondary table. (Table 17.)

[6] Washington does not operate adult preparatory programs.

Source: U.S. Office of Education Form 3139, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971 since only three-fourths million were available for work.

Vocational Instruction

There were a quarter million vocational education teachers in 1970-71, and on the following pages are a series of tables showing student/teacher ratios in each of eight occupational areas. The qualifications for teaching vocational subjects usually include a combination of work experience in the occupation and pre-service teacher education. In-service education is also stressed after becoming a vocational teacher. Following the student/teacher ratio tables are two more on the instructional force in 1970-71, the numbers of teachers educated in pre-service programs and the numbers given additional in-service education.

Beyond the bare statistics in these tables, very little data are available, virtually nothing on a national scale. Some of the States have fairly complete statistics on sex and age, certification, years of experience, hours taught per week, and number of students. Other States are developing this kind of information as data systems become available to collect and process the data.

Nationally, the statistics available are not only inadequate but also a matter of some concern. Student/teacher ratios are not out of line for oridinary classrooms, but for preparing students in exacting skills which require demonstrations and closely supervised practice some of the ratios may be too low. When students have to stand in line to watch a welding demonstration by a single teacher in a class too big to see at all until the second or third position has been reached, the education process is slowed down to a point of doubtful benefit.[1]

The number of vocational teachers being developed in pre-service programs was less than one-fourth the number teaching in 1970-71. This is dangerously close to a replacement level only. It raises doubts about the capability of continued expansion of vocational education at a rate adequate to provide for even minimum requirements in the schools.

Student/teacher ratios in vocational education programs, 1970-71. From the beginning of the vocational movement in education individualized instruction has been recognized as an imperative element. Consequently, much attention has been directed toward the number of students assigned to a teacher. The national student/teacher ratio for all teachers and students, 1970-71, was 39:1. (Total number of teachers identified in Table 19A, 231,695; the total number of students, 9,148,506.)

The student/teacher ratios for the various branches of vocational education for 1970-71 were:

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[1] This example was witnessed by a member of the Project staff in one of the high schools visited in the spot check of unreported programs.

Agriculture Education	50:1	(Range 117:1 - 12:1)
Distributive Education	46:1	(Range 88:1 - 25:1)
Health Occupations	21:1	(Range 60:1 - 7:1)
Consumer & Homemaking	71:1	(Range 219:1 - 19:1)
Occupational Home Economics	30:1	(Range 303:1 - 3:1)
Office Occupations	43:1	(Range 136:1 - 6:1)
Technical Education	21:1	(Range 94:1 - 4:1)
Trade & Industrial Education	31:1	(Range 108:1 - 14:1)

Direct interpretation of these data can be misleading. In the first place they combine into one figure all of the full-time and part-time teachers. In the second place they do not indicate how many classes each teacher conducts. For example, the data show that on the average one teacher of agriculture is responsible for fifty-two students, however if the teacher has five classes per day the number of students per class is ten, which appears to be a reasonable load. In the third place the data do not distinguish the various organizational structure for classes in the eight fields indicated above — that is, consumer and homemaking is organized differently from health occupations programs. The number of students per teacher in nursing, for example, could be quite different from the number of students in nurse aide programs or in medical records technology programs.

Despite the inherent problems involved in direct interpretation of the data, Table 19A does in fact shown what it was intended to show, namely variations among the States. It is a fact, in trade and industrial education, that the State of Wyoming and the State of Washington organize their programs differently.

Teachers educated by way of pre-service and in-service activities for vocational education, 1970-71. The most striking conclusion to be reached from the data in Tables 28A and B is that the States vary widely in their interpretation of the terms in-service and pre-service. It is quite obvious that either new terms must be generated or present terms be defined for more general application across the Nation. Because of the obvious conclusion that in-service and pre-service do not hold the same meaning throughout the Nation when applied to services for teachers, the reliability of comparative data may be questioned.

No attempt will be made at this point to provide a complete analysis of the interpretation problem, but briefly, the problem includes the following:

--For some areas of vocational education, pre-service means the preparation given as a part of a baccalaureate degree (or post-baccalaureate) prior to the time the teacher begins full-time teaching.

--For some areas, largely trade and industrial and technical, teachers enter teaching directly from employment and complete teacher education concurrently with teaching: but, this practice is in no way uniform among the States.

--In its basic intent, in-service teacher education is supposed to reach all vocational education teachers for the purpose of providing updating and upgrading experience consistent with the rapid growth of vocational education. The kind of professional development for teachers intended by in-service education consists of two basic parts: (1) upgrading in the competency field of the teacher, and (2) professional updating in education with an emphasis upon teaching and learning skills.

Despite inherent problems in attempting to separate professional development into two parts -- in-service and pre-service -- the data show that during 1970-71, 47.9 percent of the vocational teachers of the Nation experience some kind of professional development.

TABLE 19A

Student/Teacher Ratios in Vocational Education Occupational Areas, 1970-71

States	Total Number of Students in Vocational Education	Total Number of Teachers in Vocational Education	Student/Teacher Ratio in Vocational Education
U.S. TOTAL	9,148,506	231,695[1,2]	39:1
Alabama	147,220	3,415	43:1
Alaska	13,147	272	48:1
Arizona	88,471	2,755	32:1
Arkansas	103,907	2,742	38:1
California	1,204,611	17,319	70:1
Colorado	95,309	3,070	31:1
Connecticut	113,694	3,238	35:1
Delaware	31,211	620	50:1
Dist. of C.	11,008	253	44:1
Florida	438,087	9,098	48:1
Georgia	255,887	6,148	42:1
Hawaii	38,692	783	49:1
Idaho	30,370	893	34:1
Illinois	541,178	12,752	42:1
Indiana	131,338	3,531	37:1
Iowa	127,911	5,105	25:1
Kansas	93,151	2,469	38:1
Kentucky	145,324	3,455	42:1
Louisiana	174,373	3,112	56:1
Maine	23,424	1,310	18:1
Maryland	141,774	3,830	37:1
Massachusetts	121,950	4,383	28:1
Michigan	320,055	8,742	37:1
Minnesota	219,085	5,770	38:1
Mississippi	101,768	2,073	49:1

[1] Totals in this column do not equal the sum of the occupational area totals in following Tables as these figures include teachers in Voc. Ed. Guidance, Special Ed. Classes, etc.

[2] State totals in this column are the totals of full-time and part-time teachers for secondary, post-secondary, and adult, therefore, in most States the total shown represents a duplicated count.

TABLE 19A Cont'd

States	Total Number of Students in Vocational Education	Total Number of Teachers in Vocational Education	Student/Teacher Ratio in Vocational Education
Missouri	143,632	4,581	31:1
Montana	27,328	767	36:1
Nebraska	65,318	1,648	40:1
Nevada	18,110	582	31:1
New Hampshire	23,082	724	32:1
New Jersey	292,516	8,158	36:1
New Mexico	49,178	925	53:1
New York	669,717	19,428	34:1
North Carolina	376,817	10,757	35:1
North Dakota	26,215	783	33:1
Ohio	389,044	11,184	35:1
Oklahoma	104,223	1,930	54:1
Oregon	101,090	3,372	30:1
Pennsylvania	337,835	11,327	30:1
Rhode Island	18,370	497	37:1
South Carolina	93,616	2,224	42:1
South Dakota	21,413	628	34:1
Tennessee	143,572	3,521	41:1
Texas	577,695	12,252	47:1
Utah	94,983	2,409	39:1
Vermont	12,593	563	22:1
Virginia	243,000	6,780	36:1
Washington	226,118	7,048	32:1
West Virginia	59,199	1,721	34:1
Wisconsin	187,637	6,863	27:1
Wyoming	14,249	632	23:1
Guam	2,817	71	40:1
Puerto Rico	109,809	2,993	37:1
Virgin Isl.	1,769	58	31:1
Am. Samoa	2,914	28	104:1
Pacific Tr. Terr.	1,702	103	17:1

Sources: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 19B

Rank Order of States Showing Student/Teacher Ratios in Vocational Education, 1970-71

U.S. MEAN = 39:1

State	Ratio	State	Ratio
American Samoa	104:1	Puerto Rico	37:1
California	70:1	Montana	36:1
Louisiana	56:1	New Jersey	36:1
Oklahoma	54:1	Virginia	36:1
New Mexico	53:1	Ohio	35:1
Delaware	50:1	Connecticut	35:1
Hawaii	49:1	North Carolina	35:1
Mississippi	49:1	Idaho	34:1
Alaska	48:1	New York	34:1
Florida	48:1	South Dakota	34:1
Texas	47:1	West Virginia	34:1
Dist. of Columbia	44:1	North Dakota	33:1
Alabama	43:1	Arizona	32:1
Georgia	42:1	New Hampshire	32:1
Illinois	42:1	Washington	32:1
Kentucky	42:1	Colorado	31:1
South Carolina	42:1	Missouri	31:1
Tennessee	41:1	Nevada	31:1
Nebraska	40:1	Virgin Islands	31:1
Guam	40:1	Oregon	30:1
Utah	39:1	Pennsylvania	30:1
Arkansas	38:1	Massachusetts	28:1
Kansas	38:1	Wisconsin	27:1
Minnesota	38:1	Iowa	25:1
Indiana	37:1	Wyoming	23:1
Maryland	37:1	Vermont	22:1
Michigan	37:1	Maine	18:1
Rhode Island	37:1	Pacific Tr. Territories	17:1

TABLE 20

Student/Teacher Ratios in Agricultural Education Programs, 1970-71

States	Number of Students in Agricultural Education	Number of Teachers in Agricultural Education	Student/Teacher Ratio in Agricultural Education	Rank Order of States by Student/Teacher Ratio
U.S. TOTAL	819,880	16,145	50:1	50:1
Alabama	43,551	762	57:1	10
Alaska	0	0	0	55
Arizona	3,825	70	55:1	12
Arkansas	20,968	749	28:1	47
California	48,390	702	69:1	5
Colorado	3,853	137	28:1	48
Connecticut	1,890	67	28:1	49
Delaware	1,244	27	46:1	21
Dist. of C.	123	4	31:1	44
Florida	20,215	421	48:1	20
Georgia	36,706	662	55:1	13
Hawaii	2,700	43	63:1	8
Idaho	4,736	117	40:1	31
Illinois	24,292	706	34:1	40
Indiana	20,783	473	44:1	26
Iowa	29,060	593	49:1	17
Kansas	9,209	238	39:1	33
Kentucky	19,316	432	45:1	23
Louisiana	19,962	436	46:1	22
Maine	894	24	37:1	34
Maryland	2,951	72	41:1	30
Massachusetts	983	84	12:1	54
Michigan	14,435	256	56:1	11
Minnesota	31,917	624	51:1	15
Mississippi	22,237	608	37:1	35

TABLE 20 Cont'd

States	Number of Students in Agricultural Education	Number of Teachers in Agricultural Education	Student/Teacher Ratio in Agricultural Education	Rank Order of States by Student/Teacher Ratio
Missouri	17,015	260	65:1	7
Montana	3,589	80	45:1	24
Nebraska	7,537	221	34:1	41
Nevada	870	33	26:1	51
New Hampshire	1,239	36	34:1	42
New Jersey	2,205	55	40:1	32
New Mexico	4,226	45	94:1	3
New York	10,996	490	22:1	53
North Carolina	31,061	618	50:1	16
North Dakota	4,987	113	44:1	27
Ohio	29,674	807	37:1	36
Oklahoma	23,845	387	62:1	9
Oregon	4,193	161	26:1	52
Pennsylvania	14,352	481	30:1	46
Rhode Island	1,160	17	68:1	6
South Carolina	22,891	507	45:1	25
South Dakota	4,652	108	43:1	28
Tennessee	22,342	279	80:1	4
Texas	146,988	1,257	117:1	1
Utah	6,913	69	100:1	2
Vermont	1,304	38	34:1	43
Virginia	20,604	657	31:1	45
Washington	15,868	290	55:1	14
West Virginia	4,563	124	37:1	37
Wisconsin	25,408	512	50:1	19
Wyoming	1,937	55	35:1	39
Guam	0	0	0	56
Puerto Rico	4,641	125	37:1	38
Virgin Islands	83	2	42:1	29
Am. Samoa	56	2	28:1	50
Pacific Tr. Terr.	441	9	49:1	18

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.

TABLE 21

Student/Teacher Ratios in Distributive Education Programs, 1970-71

States	Number of Students in Distributive Education	Number of Teachers in Distributive Education	Student/Teacher Ratio in Distributive Education	Rank Order of States by Student/Teacher Ratio
U.S. TOTAL	574,551	12,379	46:1	46:1
Alabama	5,405	116	47:1	23
Alaska	1,990	0	—	—
Arizona	9,340	191	49:1	19
Arkansas	6,456	91	71:1	5
California	67,231	1,127	60:1	7
Colorado	8,490	248	34:1	42
Connecticut	3,549	81	44:1	26
Delaware	1,912	27	71:1	6
Dist. of C.	759	9	84:1	2
Florida	38,750	742	52:1	14
Georgia	14,646	323	45:1	25
Hawaii	1,557	31	50:1	16
Idaho	1,069	31	34:1	41
Illinois	23,456	776	30:1	47
Indiana	5,005	127	39:1	35
Iowa	4,809	196	25:1	51
Kansas	8,841	152	58:1	9
Kentucky	9,713	230	42:1	30
Louisiana	9,304	188	49:1	20
Maine	823	20	41:1	32
Maryland	4,439	141	31:1	46
Massachusetts	3,984	140	28:1	50
Michigan	34,405	721	48:1	22
Minnesota	14,752	352	42:1	31
Mississippi	4,791	112	43:1	28

TABLE 21 Cont'd

States	Number of Students in Distributive Education	Number of Teachers in Distributive Education	Student/Teacher Ratio in Distribuitve Education	Rank Order of States by Student/ Teacher Ratio
Missouri	11,460	227	50:1	17
Montana	1,489	27	55:1	11
Nebraska	4,391	78	56:1	10
Nevada	635	13	49:1	21
New Hampshire	285	9	32:1	44
New Jersey	14,100	240	59:1	8
New Mexico	1,765	23	77:1	4
New York	37,377	1,049	36:1	39
North Carolina	16,661	410	41:1	33
North Dakota	940	25	38:1	36
Ohio	39,120	887	44:1	27
Oklahoma	5,040	91	55:1	12
Oregon	5,685	154	37:1	38
Pennsylvania	11,454	355	32:1	45
Rhode Island	859	21	41:1	34
South Carolina	3,983	86	46:1	24
South Dakota	1,073	25	43:1	29
Tennessee	10,011	181	55:1	13
Texas	39,707	493	81:1	3
Utah	6,544	74	88:1	1
Vermont	519	18	29:1	49
Virginia	43,580	865	50:1	18
Washington	11,039	338	33:1	43
West Virginia	767	26	30:1	48
Wisconsin	9,417	269	35:1	40
Wyoming	802	21	38:1	37
Guam	0	0	0	52
Puerto Rico	10,363	202	51:1	15
Virgin Islands	9	0	--	--
Am Samoa	0	0	0	53
Pacific Tr. Terr.	0	0	0	54

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 22

Student/Teacher Ratios in Health Occupations Programs, 1970-71

States	Number of Students in Health Occupations	Number of Teachers in Health Occupations	Student/Teacher Ratio in Health Occupations	Rank Order of States by Student/Teacher Ratio
U.S. TOTAL	268,947	12,292	21:1	21:1
Alabama	2,975	105	28:1	8
Alaska	128	9	14:1	45
Arizona	3,629	273	13:1	47
Arkansas	1,981	118	17:1	29
California	37,226	1,373	27:1	9
Colorado	3,873	180	22:1	20
Connecticut	1,954	80	24:1	16
Delaware	467	16	29:1	7
Dist. of C.	727	41	18:1	26
Florida	14,392	238	60:1	1
Georgia	5,079	215	24:1	17
Hawaii	475	24	20:1	24
Idaho	711	44	16:1	39
Illinois	11,438	727	16:1	40
Indiana	2,644	156	17:1	30
Iowa	8,226	375	22:1	21
Kansas	1,298	125	10:1	51
Kentucky	2,508	166	15:1	43
Louisiana	3,378	133	25:1	14
Maine	922	28	33:1	6
Maryland	2,312	135	17:1	31
Massachusetts	3,046	248	12:1	48
Michigan	10,063	487	21:1	22
Minnesota	4,191	301	14:1	46
Mississippi	2,046	99	21:1	23

TABLE 22 Cont'd

States	Number of Students in Health Occupations	Number of Teachers in Health Occupations	Student/Teacher Ratio in Health Occupations	Rank Order of States by Student/Teacher Ratio
Missouri	5,269	314	17:1	32
Montana	582	35	17:1	33
Nebraska	2,475	144	17:1	34
Nevada	719	27	27:1	10
New Hampshire	517	45	11:1	49
New Jersey	6,095	223	27:1	11
New Mexico	1,075	44	24:1	18
New York	34,287	1,450	24:1	19
North Carolina	20,563	791	26:1	12
North Dakota	958	58	17:1	35
Ohio	8,582	538	16:1	41
Oklahoma	2,958	170	17:1	36
Oregon	2,856	178	16:1	42
Pennsylvania	9,723	532	18:1	27
Rhode Island	950	24	40:1	3
South Carolina	1,440	84	17:1	37
South Dakota	372	45	8:1	54
Tennessee	3,931	219	18:1	28
Texas	14,721	389	38:1	5
Utah	1,830	36	51:1	2
Vermont	249	25	10:1	52
Virginia	3,961	239	17:1	38
Washington	7,672	525	15:1	44
West Virginia	1,079	54	20:1	25
Wisconsin	8,625	344	25:1	15
Wyoming	178	18	10:1	53
Guam	0	0	0	56
Puerto Rico	1,540	41	38:1	4
Virgin Islands	11	1	11:1	50
Am. Samoa	14	2	7:1	55
Pacific Tr. Terr.	26	1	26:1	13

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 23

Student/Teacher Ratios in Consumer & Homemaking Programs, 1970-71

States	Number of Students in Consumer & Homemaking	Number of Teachers in Consumer & Homemaking	Student/Teacher Ratio in Consumer & Homemaking	Rank Order of States by Student/Teacher Ratio
U.S. TOTAL	2,450,681	34,302	71:1	71:1
Alabama	38,171	508	75:1	18
Alaska	2,037	39	52:1	39
Arizona	30,878	265	117:1	2
Arkansas	36,364	379	96:1	10
California	200,112	2,012	99:1	9
Colorado	33,026	533	62:1	29
Connecticut	19,821	417	48:1	43
Delaware	5,261	81	65:1	23
Dist. of C.	2,446	21	116:1	3
Florida	147,621	1,539	96:1	11
Georgia	65,599	640	102:1	7
Hawaii	12,991	141	92:1	13
Idaho	12,058	194	62:1	27
Illinois	31,734	851	37:1	48
Indiana	49,535	688	72:1	19
Iowa	39,691	689	58:1	33
Kansas	21,509	365	59:1	32
Kentucky	49,539	596	83:1	16
Louisiana	53,159	757	70:1	21
Maine	2,429	112	22:1	53
Maryland	39,935	765	52:1	40
Massachusetts	4,727	250	19:1	54
Michigan	82,658	1,274	65:1	24
Minnesota	69,301	1,320	53:1	38
Mississippi	30,522	491	62:1	28

TABLE 23 Cont'd

States	Number of Students in Consumer & Homemaking	Number of Teachers in Consumer & Homemaking	Student/Teacher Ratio in Consumer & Homemaking	Rank Order of States by Student/Teacher Ratio
Missouri	58,132	637	91:1	14
Montana	8,777	144	61:1	30
Nebraska	26,563	334	80:1	17
Nevada	3,526	70	50:1	41
New Hampshire	6,331	207	31:1	51
New Jersey	86,226	1,520	57:1	34
New Mexico	15,131	69	219:1	1
New York	196,100	3,128	63:1	25
North Carolina	107,685	979	110:1	4
North Dakota	10,146	185	55:1	36
Ohio	136,173	1,308	104:1	6
Oklahoma	34,074	362	94:1	12
Oregon	39,594	552	72:1	20
Pennsylvania	52,288	1,397	37:1	49
Rhode Island	8,500	134	63:1	26
South Carolina	29,606	445	67:1	22
South Dakota	9,000	190	47:1	45
Tennessee	47,979	534	89:1	15
Texas	229,357	2,153	107:1	5
Utah	24,834	617	40:1	47
Vermont	4,579	99	46:1	46
Virginia	44,734	938	48:1	44
Washington	74,486	738	101:1	8
West Virginia	20,158	330	61:1	31
Wisconsin	41,142	1,137	36:1	50
Wyoming	3,818	131	29:1	52
Guam	72	0	—	--
Puerto Rico	49,218	999	49:1	42
Virgin Islands	0	14	—	--
American Samoa	279	5	56:1	35
Pacific Trust Terr.	1,049	19	55:1	37

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 24

Student/Teacher Ratios in Occupational Home Economics Programs, 1970-71

States	Number of Students in Occupational Home Economics	Number of Teachers in Occupational Home Economics	Student/Teacher Ratio in Occupational Home Economics	Rank Order of States by Student/Teacher Ratio
U.S. TOTAL	192,152	6,246	30:1	30:1
Alabama	6,714	159	42:1	15
Alaska	233	3	78:1	5
Arizona	3,251	63	52:1	10
Arkansas	1,163	373	3:1	52
California	25,509	644	39:1	17
Colorado	1,666	77	23:1	36
Connecticut	638	21	30:1	28
Delaware	787	18	44:1	14
Dist. of C.	188	2	94:1	3
Florida	10,843	361	30:1	29
Georgia	5,030	270	19:1	41
Hawaii	522	3	174:1	2
Idaho	332	28	12:1	47
Illinois	22,579	569	40:1	16
Indiana	2,631	288	9:1	50
Iowa	1,905	65	29:1	30
Kansas	862	31	28:1	33
Kentucky	1,666	47	35:1	23
Louisiana	1,332	41	32:1	25
Maine	559	29	19:1	42
Maryland	2,210	31	71:1	7
Massachusetts	2,242	72	31:1	26
Michigan	9,233	171	54:1	9
Minnesota	11,950	161	74:1	6
Mississippi	1,695	24	71:1	8

TABLE 24 Cont'd

States	Number of Students in Occupational Home Economics	Number of Teachers in Occupational Home Economics	Student/Teacher Ratio in Occupational Home Economics	Rank Order of States by Student/Teacher Ratio
Missouri	2,023	61	33:1	24
Montana	293	8	37:1	20
Nebraska	369	30	12:1	48
Nevada	505	23	22:1	38
New Hampshire	86	6	14:1	46
New Jersey	7,061	84	84:1	4
New Mexico	802	29	28:1	34
New York	6,117	268	23:1	37
North Carolina	14,990	324	46:1	13
North Dakota	453	9	50:1	12
Ohio	4,368	206	21:1	39
Oklahoma	2,714	53	51:1	11
Oregon	1,038	94	11:1	49
Pennsylvania	7,949	430	18:1	44
Rhode Island	36	1	36:1	22
South Carolina	1,353	43	31:1	27
South Dakota	892	46	19:1	43
Tennessee	1,941	50	39:1	18
Texas	10,361	264	38:1	19
Utah	1,965	55	37:1	21
Vermont	176	6	29:1	31
Virginia	1,285	62	21:1	40
Washington	1,975	218	9:1	51
West Virginia	1,102	41	27:1	35
Wisconsin	3,047	102	29:1	32
Wyoming	0	1	0	53
Guam	0	0	0	54
Puerto Rico	2,905	179	16:1	45
Virgin Isl.	606	2	303:1	1
Am. Samoa	0	0	0	55
Pac. Tr. Terr.	0	0	0	56

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 25

Student/Teacher Ratios in Office Occupations Programs, 1970-71

States	Number of Students in Office Occupations	Number of Teachers in Office Occupations	Student/Teacher Ratio in Office Occupations	Rank Order of States by Student/ Teacher Ratio
U.S. TOTAL	2,220,499	51,186	43:1	43:1
Alabama	14,207	303	47:1	17
Alaska	5,021	77	65:1	10
Arizona	17,110	446	38:1	28
Arkansas	8,063	273	30:1	42
California	418,053	4,938	85:1	5
Colorado	20,455	559	37:1	30
Connecticut	46,250	777	60:1	12
Delaware	15,664	178	88:1	4
Dist. of C.	945	22	43:1	23
Florida	76,941	1,027	75:1	7
Georgia	83,050	1,841	45:1	20
Hawaii	12,200	183	67:1	9
Idaho	5,599	144	39:1	24
Illinois	236,939	3,769	63:1	11
Indiana	19,855	424	47:1	18
Iowa	9,723	385	25:1	49
Kansas	9,662	249	39:1	25
Kentucky	19,713	797	25:1	50
Louisiana	60,006	1,009	59:1	13
Maine	8,987	453	20:1	54
Maryland	52,573	1,358	39:1	26
Massachusetts	70,911	1,591	45:1	21
Michigan	61,429	1,641	37:1	31
Minnesota	28,560	1,242	23:1	51
Mississippi	7,184	235	31:1	39

TABLE 25 Cont'd

States	Number of Students in Office Occupations	Number of Teachers in Office Occupations	Student/Teacher Ratio in Office Occupations	Rank Order of States by Student/ Teacher Ratio
Missouri	18,268	786	23:1	52
Montana	5,351	110	49:1	15
Nebraska	7,399	234	32:1	38
Nevada	4,871	133	37:1	32
New Hampshire	9,927	203	49:1	16
New Jersey	115,995	2,602	45:1	22
New Mexico	18,518	136	136:1	1
New York	217,964	7,279	30:1	43
North Carolina	30,795	1,029	30:1	44
North Dakota	4,298	128	34:1	37
Ohio	41,386	1,880	21:1	53
Oklahoma	8,972	180	50:1	14
Oregon	23,406	828	28:1	45
Pennsylvania	101,994	3,982	26:1	48
Rhode Island	749	20	37:1	33
South Carolina	11,058	317	35:1	35
South Dakota	1,734	109	16:1	55
Tennessee	16,166	428	38:1	20
Texas	42,112	550	77:1	6
Utah	27,174	394	69:1	8
Vermont	1,226	201	6:1	56
Virginia	60,057	1,952	31:1	40
Washington	55,882	1,182	47:1	19
West Virginia	10,440	300	35:1	36
Wisconsin	49,408	1,579	31:1	41
Wyoming	5,896	210	28:1	46
Guam	90	4	123:1	2
Puerto Rico	18,400	477	39:1	27
Virgin Islands	428	16	27:1	47
Am. Samoa	675	6	113:1	3
Pac. Tr. Terr.	360	10	36:1	34

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 26

Student/Teacher Ratios in Technical Education Programs, 1970-71

States	Number of Students in Technical Education	Number of Teachers in Technical Education	Student/Teacher Ratio in Technical Education	Rank Order of States by Student/ Teacher Ratio
U.S. TOTAL	312,944	14,643	21:1	21:1
Alabama	2,330	75	31:1	13
Alaska	1,695	18	94:1	1
Arizona	3,591	318	11:1	41
Arkansas	154	23	7:1	50
California	51,127	1,387	37:1	6
Colorado	4,619	205	23:1	19
Connecticut	11,340	357	32:1	10
Delaware	728	34	21:1	22
Dist. of C.	0	0	0	54
Florida	28,085	343	82:1	2
Georgia	7,055	303	23:1	20
Hawaii	399	41	10:1	44
Idaho	739	58	13:1	37
Illinois	13,453	989	14:1	35
Indiana	1,041	29	36:1	7
Iowa	2,198	210	10:1	45
Kansas	537	75	7:1	51
Kentucky	1,143	40	29:1	14
Louisiana	3,553	170	21:1	23
Maine	1,225	63	19:1	24
Maryland	5,709	321	18:1	26
Massachusetts	2,006	238	8:1	48
Michigan	11,555	533	22:1	21
Minnesota	7,427	405	18:1	27
Mississippi	6,229	141	44:1	5

TABLE 26 Cont'd

States	Number of Students in Technical Education	Number of Teachers in Technical Education	Student/Teacher Ratio in Technical Education	Rank Order of States by Student/Teacher Ratio
Missouri	4,085	320	13:1	38
Montana	653	39	17:1	29
Nebraska	612	63	10:1	46
Nevada	1,931	55	35:1	8
New Hampshire	311	21	15:1	34
New Jersey	6,814	426	16:1	30
New Mexico	605	55	11:1	42
New York	40,954	1,294	32:1	11
North Carolina	10,514	1,336	8:1	49
North Dakota	602	45	13:1	39
Ohio	5,720	350	16:1	31
Oklahoma	7,850	169	46:1	4
Oregon	4,522	421	11:1	43
Pennsylvania	18,183	983	18:1	28
Rhode Island	700	45	16:1	32
South Carolina	1,195	36	33:1	9
South Dakota	659	27	24:1	17
Tennessee	3,640	256	14:1	36
Texas	7,846	248	32:1	12
Utah	644	22	29:1	15
Vermont	352	38	9:1	47
Virginia	4,183	269	16:1	33
Washington	10,608	433	24:1	18
West Virginia	2,491	129	19:1	25
Wisconsin	7,193	1,067	6:1	52
Wyoming	220	54	4:1	53
Guam	143	2	72:1	3
Puerto Rico	1,751	62	28:1	16
Virgin Islands	24	2	13:1	40
Am. Samoa	0	0	0	55
Pacific Tr. Terr.	0	0	0	56

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 27

Student/Teather Ratios in Trade & Industrial Education Programs, 1970-71

States	Number of Students in Trade and Industrial Education	Number of Teachers in Trade and Industrial Education	Student /Teacher Ratio in Trade & Industrial Education	Rank Order of States by Student/ Teacher Ratio
U.S. TOTAL	2,052,750	64,932	31:1	31:1
Alabama	33,867	1,282	26:1	34
Alaska	2,043	71	29:1	22
Arizona	16,719	711	24:1	40
Arkansas	24,194	723	33:1	17
California	274,188	4,772	57:1	2
Colorado	18,911	781	24:1	41
Connecticut	28,070	913	31:1	18
Delaware	4,478	208	22:1	44
Dist. of C.	3,381	128	26:1	35
Florida	90,648	2,343	39:1	10
Georgia	36,842	1,569	23:1	42
Hawaii	7,842	286	27:1	28
Idaho	4,862	246	20:1	60
Illinois	177,287	3,722	48:1	5
Indiana	27,572	1,077	26:1	36
Iowa	26,141	999	26:1	37
Kansas	38,685	1,148	34:1	15
Kentucky	35,977	950	38:1	11
Louisiana	23,679	584	41:1	7
Maine	7,472	435	17:1	54
Maryland	27,365	912	30:1	19
Massachusetts	33,534	1,676	20:1	51
Michigan	83,502	3,349	25:1	39
Minnesota	50,987	1,365	37:1	14
Mississippi	22,039	829	27:1	29

TABLE 27 Cont'd

	Number of Students in Trade and Industrial Education	Number of Teachers in Trade and Industrial Education	Student/Teacher Ratio in Trade & Industrial Education	Rank Order of States by Student/ Teacher Ratio
Missouri	26,492	1,131	23:1	43
Montana	6,594	224	29:1	23
Nebraska	14,944	523	29:1	24
Nevada	4,874	219	22:1	45
New Hampshire	3,996	181	22:1	46
New Jersey	51,174	1,918	27:1	30
New Mexico	6,960	173	40:1	9
New York	125,922	4,470	28:1	26
North Carolina	122,725	4,539	27:1	31
North Dakota	3,592	121	30:1	20
Ohio	93,992	3,344	28:1	27
Oklahoma	22,654	500	45:1	6
Oregon	19,435	1,053	18:1	52
Pennsylvania	76,417	2,825	27:1	32
Rhode Island	5,058	187	27:1	33
South Carolina	18,646	459	41:1	8
South Dakota	3,017	203	15:1	55
Tennessee	38,197	1,016	38:1	12
Texas	86,603	1,648	53:1	3
Utah	17,853	856	21:1	47
Vermont	3,590	120	30:1	21
Virginia	61,339	1,181	52:1	4
Washington	45,743	3,176	14:1	56
West Virginia	18,599	551	34:1	16
Wisconsin	49,006	2,130	21:1	48
Wyoming	1,398	13	108:1	1
Guam	919	24	38:1	13
Puerto Rico	20,991	804	26:1	38
Virgin Islands	407	14	29:1	25
Am. Samoa	290	14	21:1	49
Pacific Tr. Terr.	1,038	59	18:1	53

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 28A

Number of Vocational Education Teachers Receiving Pre-Service Training, 1970-71[1]

States	Total Number of Vocational Teachers	Number of Teachers Receiving Preparation through Pre-Service Activities	Percent of Total Vocational Education Teachers	Rank Order of States by Percent of Pre-Service Training
U.S. TOTAL	231,695	49,684	21.4	21.4
Alabama	3,415	1,536	45.0	11
Alaska	272	6	2.2	50
Arizona	2,755	612	22.2	28
Arkansas	2,742	599	21.8	31
California	17,319	50	.3	52
Colorado	3,070	718	23.4	26
Connecticut	3,238	457	14.1	40
Delaware	620	120	19.4	36
Dist. of C.	253	26	10.3	45
Florida	9,098	1,055	11.6	42
Georgia	6,148	363	5.9	47
Hawaii	783	379	48.4	8
Idaho	893	349	39.1	12
Illinois	12,752	NA	NA	NA
Indiana	3,531	964	27.3	23
Iowa	5,105	1,035	20.3	35
Kansas	2,469	413	16.7	38
Kentucky	3,455	1,742	50.4	6
Louisiana	3,112	1,062	34.1	17
Maine	1,310	302	23.1	27
Maryland	3,830	463	12.1	41
Massachusetts	4,383	86	2.0	51
Michigan	8,742	3,979	45.5	10
Minnesota	5,770	3,239	56.1	4
Mississippi	2,073	1,005	48.5	7

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[1] Pre-service is generally accepted to mean the preparation given as part of a baccalaureate or post-baccalaureate prior to the time the teacher begins full-time teaching. Trade and industrial and technical teachers who entered directly from employment would complete pre-service concurrently with teaching. This table does not include teachers trained in guidance, exemplary, etc. It includes only those trained in the eight occupational areas.

TABLE 28A Cont'd

States	Total Number of Vocational Teachers	Number of Teachers Receiving Preparation through Pre-Service Activities	Percent of Total Vocational Education Teachers	Rank Order of States by Percent of Pre-Service Training
Missouri	4,581	1,397	30.5	22
Montana	767	827	107.8	1
Nebraska	1,648	642	39.0	13
Nevada	582	94	16.2	39
New Hampshire	724	160	22.1	29
New Jersey	8,158	1,788	21.9	30
New Mexico	925	323	34.9	15
New York	19,428	2,023	10.4	44
North Carolina	10,757	1,196	11.1	43
North Dakota	783	702	89.7	2
Ohio	11,184	2,657	23.8	25
Oklahoma	1,930	1,118	57.9	3
Oregon	3,372	724	21.5	33
Pennsylvania	11,327	3,922	34.6	16
Rhode Island	497	252	50.7	5
South Carolina	2,224	461	20.7	34
South Dakota	628	228	36.3	14
Tennessee	3,521	855	24.3	24
Texas	12,252	4,103	33.5	19
Utah	2,409	526	21.8	32
Vermont	563	258	45.8	9
Virginia	6,780	2,124	31.3	21
Washington	7,048	1,237	17.6	37
West Virginia	1,721	555	32.2	20
Wisconsin	6,863	599	8.7	46
Wyoming	632	214	33.9	18
Guam	71	NA	NA	NA
Puerto Rico	2,993	136	4.5	48
Virgin Islands	58	0	0.0	53
Am. Samoa	28	0	0.0	54
Pacific Tr. Terr.	103	3	2.9	49

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 28B

Number of Vocational Education Teachers Receiving In-Service Training, 1970-71 [1]

States	Total Number of Vocational Teachers	Number of Teachers Receiving Preparation through In-Service Activities	Percent of Total Vocational Education Teachers	Rank Order of States by Percent of In-Service Training
U.S. TOTAL	231,695	61,291	26.5	26.5
Alabama	3,415	1,050	30.7	29
Alaska	272	185	68.0	3
Arizona	2,755	1,434	52.1	14
Arkansas	2,742	545	19.9	42
California	17,319	2,882	16.6	45
Colorado	3,070	1,754	57.1	9
Connecticut	3,238	447	13.8	48
Delaware	620	52	8.4	52
Dist. of C.	253	55	21.7	38
Florida	9,098	2,516	27.7	34
Georgia	6,148	1,277	20.8	40
Hawaii	783	486	62.1	7
Idaho	893	368	41.2	20
Illinois	12,752	NA	NA	NA
Indiana	3,531	2,346	66.4	4
Iowa	5,105	1,075	21.2	39
Kansas	2,469	849	34.4	21
Kentucky	3,455	1,902	55.1	11
Louisiana	3,112	1,703	54.7	12
Maine	1,310	238	18.2	44
Maryland	3,830	476	12.4	50
Massachusetts	4,383	85	1.9	54
Michigan	8,742	1,820	20.8	41
Minnesota	5,770	1,843	31.9	24
Mississippi	2,073	916	44.2	18

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[1] In-service training is designed to provide updating and upgrading to teachers currently engaged in teaching. This table does not include teachers trained in guidance, exemplary, etc. It includes only those teachers trained in the eight occupational areas.

TABLE 28B Cont'd

States	Total Number of Vocational Teachers	Number of Teachers Receiving Preparation through In-Service Activities	Percent of Total Vocational Education Teachers	Rank Order of States by Percent of In-Service Activities
Missouri	4,581	1,548	33.8	22
Montana	767	419	54.6	13
Nebraska	1,648	820	49.8	17
Nevada	582	647	111.2	1
New Hampshire	724	234	32.3	23
New Jersey	8,158	1,958	24.0	36
New Mexico	925	295	31.9	25
New York	19,428	2,383	12.3	51
North Carolina	10,757	1,571	14.6	46
North Dakota	783	488	62.3	6
Ohio	11,184	1,571	14.0	47
Oklahoma	1,930	1,099	56.9	10
Oregon	3,372	765	22.7	37
Pennsylvania	11,327	3,492	30.8	28
Rhode Island	497	129	25.8	35
South Carolina	2,224	655	29.5	30
South Dakota	628	175	27.9	33
Tennessee	3,521	1,096	31.1	27
Texas	12,252	5,390	44.0	19
Utah	2,409	1,578	65.5	5
Vermont	563	165	29.3	32
Virginia	6,780	2,000	29.5	31
Washington	7,048	3,589	50.9	15
West Virginia	1,721	537	31.2	26
Wisconsin	6,863	346	5.0	53
Wyoming	632	118	18.7	43
Guam	71	NA	NA	NA
Puerto Rico	2,993	1,852	61.9	8
Virgin Islands	58	40	69.0	2
Am. Samoa	28	14	50.0	16
Pacific Tr. Terr.	103	13	12.6	49

Source: U.S. Office of Education Form 3136, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

Chapter III

THE INDIVIDUAL STATES

There is a great deal of similarity in vocational education and manpower training throughout the United States, but there also are many differences from State to State. Each has its own economic and employment patterns, educational traditions, structural organization, financial resources, population characteristics, public attitudes and policy, and priorities. These are reflected to some extent in the individual State plans for vocational education and Governors Manpower Committees (formerly CAMPS), although Federal directives have often inhibited State initiative in the design and preparation of such documents. The outline and basic purposes, national priorities, and national direction of both vocational education and manpower training are set by Congress with such administrative refinements and interpretations as the U.S. Office of Education and the Manpower Administration may write into the Federal Regulations. These tend to produce a general pattern of uniformity, but State boards and State administrators, as well as local districts, still have enough latitude to do things in their own ways, often with significantly different results.

In this chapter both the uniformity and the differences are shown, certainly not all of them, but enough to recognize on the one hand that these are national programs and on the other that they have a great deal of State individuality. The statistical data profile of each State in this chapter provides an overview of the State's measurable activity in vocational education and manpower training. Placement data are omitted because of numerous difficulties encountered by the States in conducting follow-up studies and the resulting variations in both validity and interpretation of the data. These have been presented and discussed in the preceding Chapter.

(Note: Statistics alone do not present the full story. More was added in the original report — a small part, admittedly -- by pointing out certain unique ways in which each State conducted its programs differently from the rest or produced different results. Many of these differences are known to the Federal agencies and among the States, but some, it is suspected, are not. The brief notations about vocational education and manpower training in each of the fifty States and the District of Columbia contained in the original report, although interesting, have been omitted in this publication because too much time has elapsed since details they contained were accurate and relevant. A duplicated copy of this material will be sent to anyone requesting it from Project Baseline, 6502 N. 35th Avenue, Phoenix, Arizona, 85017.)

Statistical Profile of Alabama 1970-71

Population:

Total State: 3,444,165
15 - 19 yrs: 341,751
20 - 24 yrs: 274,544
25 - 65 yrs: 1,480,851

SMSA: 1,755,701
Urban: 2,011,941
Rural: 1,432,224

Negro: 903,467
Am.Indian: 2,443
Oriental: 1,705
White: 2,533,831
Other: 2,719

Total School Enrollment:

Elem (1-8): 588,258
Sec (9-12): 242,072
Post-Sec (13-14): 25,887
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 89,061
Post-Sec: 17,041
Adult: 41,118
Total: 147,220

Voc. Ed. Enroll. by Race*:

Negro: 59,288
Spanish Surnamed Americans: 105
Am.Indian: 147
Oriental: 430
Other: 93,545
*Figures include 6,295 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 48,547
Urban: 27,277
Rural: 100,497

Voc. Ed. Enroll. by Program:

Agriculture: 43,551
Distrib. Ed: 5,405
Health: 2,975
Cons.& Hmkg: 38,171
Occup. H.E.: 6,714
Office: 14,207
Technical: 2,330
Trade & Ind: 33,867

Occupationally Oriented Enrollments:*

Gen Business: 80,000
Gen. Agriculture: 0
Industrial Arts: 7,000
*Includes duplication

Career Education Enrollment: 300
Total No. Schools Offering Voc. Ed: 475
Total No. of Voc. Ed. Programs: NA
Total No. Voc. Ed. Teachers: 3,415

Tot. Disadv. Voc. Ed. Enroll: 27,300
Tot. Hndcpd. Voc. Ed. Enroll: 3,288

Total Coop Enrollment: 5,995
Tot. Work-Study Enroll: 407

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 9,089,636 Total Fed. Expenditures:$ 9,006,101
Total State/Local Expenditures: $ 27,083,869
Expenditures by Location: SMSA:$ 11,822,635 Urban $ 2,968,078
Rural:$ 24,267,335
Tot. Expenditures for Disadv: $ 3,067,604 Hndcpd: $ 1,444,414
Expenditures by Pgm: Agriculture: $ 4,445,537 Distrib.Ed. $ 859,015
Health: $ 198,835 Cons.& Hmkg: $ 3,669,028 Occup.Home Ec: $ 727,546
Office: $ 1,192,468 Tech: $ 390,502 Trade & Ind: $ 4,175,296

Total Occup. Reported DoL Enrollments:

MDTA: 2,975
EOA: 668
Apprenticeship: 2,529

DoL Allocations in Occup. Reported Pgms:

MDTA $ 4,042,000
EOA $ 8,745,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 1,915
MDTA OJT: 1,060
OIC: 34

MAINSTREAM: 72
WIN: 1
NEW CAREERS: 0

PSC: 1
NYC OS: 353
CEP: 207

Statistical Profile of Alaska 1970-71

Population:

Total State: 300,382
15 - 19 yrs: 26,768
20 - 24 yrs: 35,576
25 - 65 yrs: 128,119

SMSA: 0
Urban: 145,512
Rural: 154,870

Negro: 8,911
Am.Indian: 16,276
Oriental: 1,144
White: 236,767
Other: 37,284

Total School Enrollment:

Elem (K-8): 60,717
Sec (9-12): 18,134
Post-Sec (13-14): 806
Adult: 3,847

Total Voc. Ed. Enrollment:

Sec: 8,494
Post-Sec: 806
Adult: 3,847
Total: 13,147

Voc. Ed. Enroll. by Race*:

Negro: 1,056
Spanish Surnamed Americans: 0
Am.Indian: 6,130
Oriental: 663
Other: 5,379
*Figures include 81 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 0
Rural: 13,228

Voc. Ed. Enroll. by Program:

Agriculture: 0
Distrib. Ed: 1,990
Health: 128
Cons.& Hmkg: 2,037
Occup. H.E.: 233
Office: 5,021
Technical: 1,695
Trade & Ind: 2,043

Occupationally Oriented Enrollments:

Gen Business: 3,000
Gen. Agriculture: 0
Industrial Arts: 4,600

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 90
Total No. of Voc. Ed. Programs: 288
Total No. Voc. Ed. Teachers: 272

Tot. Disadv. Voc. Ed. Enroll: 8,187
Tot. Hndcpd. Voc. Ed. Enroll: 634

Total Coop Enrollment: 4,517
Tot. Work-Study Enroll: 140

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 825,113
Total Fed. Expenditures: $ 772,996
Total State/Local Expenditures: $ 3,320,644
Expenditures by Location: SMSA: $ 0
Urban $ 0
Rural: $ 3,260,644
Tot. Expenditures for Disadv: $ 2,231,538
Hndcpd: $ 102,232
Expenditures by Pgm: Agriculture: $ NA
Distrib.Ed. $ NA
Health: $ NA
Cons.& Hmkg: $ 487,882
Occup.Home Ec: $ NA
Office: $ NA
Tech: $ NA
Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 607
EOA: 559
Apprenticeship: 474

DoL Allocations in Occup. Reported Pgms:

MDTA $ 2,175,000
EOA $ 1,150,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 554
MDTA OJT: 53
OIC: 1

MAINSTREAM: 37
WIN: 377
NEW CAREERS: 0

PSC: 1
NYC OS: 121
CEP: 0

Statistical Profile of Arizona **1970-71**

Population:
Total State: 1,773,420
15 - 19 yrs: 209,196
20 - 24 yrs: 146,764
25 - 65 yrs: 755,045

SMSA: 1,321,092
Urban: 1,410,478
Rural: 362,942

Negro: 52,744
Am.Indian: 95,948
Oriental: 6,291
White: 1,615,678
Other: 2,759

Total School Enrollment:
Elem (K-8): 344,753
Sec (9-12): 136,897
Post-Sec (13-14): 42,772
Adult: NA

Total Voc. Ed. Enrollment:
Sec: 50,310
Post-Sec: 22,281
Adult: 15,880
Total: 88,471

Voc. Ed. Enroll. by Race*:
Negro: 1,739
Spanish Surnamed Americans: 7,454
Am.Indian: 1,815
Oriental: 166
Other: 77,297
***Figures include** 0 **students under grade 9.**

Voc. Ed. Enroll. by Location:
SMSA: 65,839
Urban: 14,719
Rural: 23,041

Voc. Ed. Enroll. by Program:
Agriculture: 3,825
Distrib. Ed: 9,340
Health: 3,629
Cons.& Hmkg: 30,878
Occup. H.E.: 3,251
Office: 17,110
Technical: 3,591
Trade & Ind: 16,719

Occupationally Oriented Enrollments:
Gen Business: 16,855
Gen. Agriculture: 400
Industrial Arts: 34,870

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 112
Total No. of Voc. Ed. Programs: 310
Total No. Voc. Ed. Teachers: 2,755

Tot. Disadv. Voc. Ed. Enroll: 17,910
Tot. Hndcpd. Voc. Ed. Enroll: 406
Total Coop Enrollment: 4,111
Tot. Work-Study Enroll: 43

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $4,087,739 **Total Fed. Expenditures:**$3,961,478
Total State/Local Expenditures: $10,333,296
Expenditures by Location: SMSA:$9,088,038 **Urban** $6,717,226
Rural:$5,206,736
Tot. Expenditures for Disadv: $1,511,803 **Hndcpd:** $407,646
Expenditures by Pgm: Agriculture: $NA **Distrib.Ed.** $NA
Health: $NA **Cons.& Hmkg:** $2,292,305 **Occup.Home Ec:** $NA
Office: $NA **Tech:** $NA **Trade & Ind:** $NA

Total Occup. Reported DoL Enrollments:
MDTA: 3,402
EOA: 3,611
Apprenticeship: 2,522

DoL Allocations in Occup. Reported Pgms:
MDTA $5,154,000
EOA $7,984,000 *
***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:
MDTA Inst: 2,936
MDTA OJT: 466
OIC: 74
MAINSTREAM: 360
WIN: 1,130
NEW CAREERS: 0
PSC: 34
NYC OS: 269
CEP: 1,744

Statistical Profile of Arkansas 1970-71

Population:

Total State: 1,923,295
15 - 19 yrs: 182,192
20 - 24 yrs: 143,192
25 - 65 yrs: 819,464

SMSA: 569,046
Urban: 960,865
Rural: 962,430

Negro: 352,445
Am.Indian: 2,014
Oriental: 1,330
White: 1,565,915
Other: 1,591

Total School Enrollment:
Elem (K-8): 248,727
Sec (9-12): 212,885
Post-Sec (13-14): 7,955
Adult: NA

Total Voc. Ed. Enrollment:
Sec: 53,996
Post-Sec: 6,324
Adult: 43;587
Total: 103,907

Voc. Ed. Enroll. by Race*:
Negro: 23,163
Spanish Surnamed Americans: 489
Am.Indian: 65
Oriental: 494
Other: 79,696
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: 20,558
Urban: 11,719
Rural: 86,890

Voc. Ed. Enroll. by Program:
Agriculture: 20,968
Distrib. Ed: 6,456
Health: 1,981
Cons.& Hmkg: 36,364
Occup. H.E.: 1,163
Office: 8,063
Technical: 154
Trade & Ind: 24,,194

Occupationally Oriented Enrollments:
Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment: 9,000 est.
Total No. Schools Offering Voc. Ed: 472
Total No. of Voc. Ed. Programs: 2,650
Total No. Voc. Ed. Teachers: 2,742

Tot. Disadv. Voc. Ed. Enroll: 30,977
Tot. Hndcpd. Voc. Ed. Enroll: 3,204
Total Coop Enrollment: 3,901
Tot. Work-Study Enroll: 406

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $5,035,798
Total Fed. Expenditures: $5,094,191
Total State/Local Expenditures: $8,785,604
Expenditures by Location: SMSA: $4,075,434 Urban $1230,642
Rural: $9,803,361
Tot. Expenditures for Disadv: $3,488,537 Hndcpd: $766,438
Expenditures by Pgm: Agriculture: $ Distrib.Ed. $
Health: $ Cons.& Hmkg: $2,545,274 Occup.Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:
MDTA: 1,209
EOA: 4,851
Apprenticeship: 1,298

DoL Allocations in Occup. Reported Pgms:
MDTA $3,995,000
EOA $6,168,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst: 955
MDTA OJT: 254
OIC: 856
MAINSTREAM: 285
WIN: 1,120
NEW CAREERS: 14
PSC: 241
NYC OS: 820
CEP: 1,515

Statistical Profile of California 1970-71

Population:
Total State: 19,953,134
15 - 19 yrs: 1,817,379
20 - 24 yrs: 1,740,966
25 - 65 yrs: 9,669,329

SMSA: 18,100,615
Urban: 18,136,045
Rural: 1,817,689

Negro: 1,417,143
Am.Indian: 91,618
Oriental: 383,411
White: 17,766,632
Other: 317,536

Total School Enrollment:
Elem (K-8): 3,184,618
Sec (9-12): 1,211,253
Post-Sec (13-14): 651,991
Adult: NA

Total Voc. Ed. Enrollment:
Sec: 540,474
Post-Sec: 338,564
Adult: 325,573
Total: 1,204,611

Voc. Ed. Enroll. by Race*:
Negro: 113,278
Spanish Surnamed Americans: 194,888
Am.Indian: 4,872
Oriental: 26,796
Other: 878,221
*Figures include 13,444 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: 1,066,047
Urban: 498,137
Rural: 152,208

Voc. Ed. Enroll. by Program:
Agriculture: 48,390
Distrib. Ed: 67,231
Health: 37,226
Cons & Hmkg: 200,112
Occup. H.E.: 25,509
Office: 418,053
Technical: 51,127
Trade & Ind: 274,188

Occupationally Oriented Enrollments:
Gen Business: 81,304
Gen. Agriculture: 0
Industrial Arts: 225,354

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: NA
Total No. of Voc. Ed. Programs: 713
Total No. Voc. Ed. Teachers: 17,319

Tot. Disadv. Voc. Ed. Enroll: 174,733
Tot. Hndcpd. Voc. Ed. Enroll: 51,447
Total Coop Enrollment: 25,928
Tot. Work-Study Enroll: 2,438

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 31,372,624
Total Fed. Expenditures: $ 29,188,862
Total State/Local Expenditures: $ 211,581,957
Expenditures by Location: SMSA: $ 188,988,705
Urban $ 96,448,268
Rural: $ 51,782,114
Tot. Expenditures for Disadv: $ 23,018,308
Hndcpd: $ 4,181,287
Expenditures by Pgm: Agriculture: $ 11,658,608
Distrib.Ed. $ 8,863,365
Health: $ 69,899,171
Cons.& Hmkg: $ 21,301,206
Occup.Home Ec: $ 5,994,359
Office: $ 65,018,775
Tech: $ 14,724,102
Trade & Ind: $ 63,902,965

Total Occup. Reported DoL Enrollments:
MDTA: 14,980
EOA: 24,411
Apprenticeship: 27,967

DoL Allocations in Occup. Reported Pgms:
MDTA $ 37,678,000
EOA $ 55,055,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst: 11,093
MDTA OJT: 3,887
OIC: 977
MAINSTREAM: 196
WIN: 15,850
NEW CAREERS: 80
PSC: 96
NYC OS: 3,772
CEP: 3,440

Statistical Profile of Colorado 1970-71

Population:
Total State: 2,207,259
15 - 19 yrs: 217,451
20 - 24 yrs: 204,508
25 - 65 yrs: 953,191
SMSA: 1,581,739
Urban: 1,733,311
Rural: 473,948
Negro: 66,411
Am.Indian: 8,836
Oriental: 9,320
White: 2,112,352
Other: 10,340

Total School Enrollment:
Elem (K-8): 390,593
Sec (9-12): 159,467
Post-Sec (13-14): 13,752
Adult: NA

Total Voc. Ed. Enrollment:
Sec: 45,998
Post-Sec: 14,274
Adult: 35,037
Total: 95,309

Voc. Ed. Enroll. by Race*:
Negro: 1,304
Spanish Surnamed Americans: 4,899
Am.Indian: 274
Oriental: 545
Other: 88,287
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: 63,653
Urban: 34,622
Rural: 31,656

Voc. Ed. Enroll. by Program:
Agriculture: 3,853
Distrib. Ed: 8,490
Health: 3,873
Cons.& Hmkg: 33,026
Occup. H.E.: 1,666
Office: 20,455
Technical: 4,619
Trade & Ind: 18,911

Occupationally Oriented Enrollments:*
Gen Business: 89,177
Gen. Agriculture: 0
Industrial Arts: 139,521
*Includes Duplication
Career Education Enrollment: 13,082
Total No. Schools Offering Voc. Ed: 134
Total No. of Voc. Ed. Programs: 657
Total No. Voc. Ed. Teachers: 3,070

Tot. Disadv. Voc. Ed. Enroll: 4,162
Tot. Hndcpd. Voc. Ed. Enroll: 675
Total Coop Enrollment: 3,262
Tot. Work-Study Enroll: 186

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 4,550,221
Total Fed. Expenditures: $ 4,466,425
Total State/Local Expenditures: $ 19,391,280
Expenditures by Location: SMSA: $ 4,352,480 Urban $ 3,574,882
Rural: $ 19,505,225
Tot. Expenditures for Disadv: $ 1,893,165 Hndcpd: $ 1,337,578
Expenditures by Pgm: Agriculture: $ 850,896 Distrib.Ed. $ 677,157
Health: $ 60,525 Cons.& Hmkg: $ 1,424,917 Occup.Home Ec: $ 331,529
Office: $ 2,484,990 Tech: $ 49,647 Trade & Ind: $ 2,721,151

Total Occup. Reported DoL Enrollments:
MDTA: 3,089
EOA: 4,494
Apprenticeship: 1,995

DoL Allocations in Occup. Reported Pgms:
MDTA $ 4,845,000
EOA $ 6,637,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst: 2,741
MDTA OJT: 348
OIC: 0
MAINSTREAM: 22
WIN: 3,220
NEW CAREERS: 0
PSC: 141
NYC OS: 469
CEP: 642

Statistical Profile of Connecticut 1970-71

Population:

Total State: 3,031,709
15 - 19 yrs: 264,053
20 - 24 yrs: 229,794
25 - 65 yrs: 1,395,515

SMSA: 2,883,618
Urban: 2,345,052
Rural: 686,657

Negro: 181,177
Am. Indian: 2,222
Oriental: 3,830
White: 2,835,458
Other: 9,022

Total School Enrollment:

Elem (K-8): 536,112
Sec (9-12): 216,053
Post-Sec (13-14): 24,782
Adult: 28,829

Total Voc. Ed. Enrollment:

Sec: 78,191
Post-Sec: 6,674
Adult: 28,829
Total: 113,694

Voc. Ed. Enroll. by Race*:

Negro: NA
Spanish Surnamed Americans: NA
Am. Indian: NA
Oriental: NA
Other: NA
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 44,241
Urban: 56,645
Rural: 33,662

Voc. Ed. Enroll. by Program:

Agriculture: 1,890
Distrib. Ed: 3,549
Health: 1,954
Cons. & Hmkg: 19,821
Occup. H.E.: 638
Office: 46,250
Technical: 11,340
Trade & Ind: 28,070

Occupationally Oriented Enrollments:

Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 190
Total No. of Voc. Ed. Programs: 2,142
Total No. Voc. Ed. Teachers: 3,238

Tot. Disadv. Voc. Ed. Enroll: 39,206
Tot. Hndcpd. Voc. Ed. Enroll: 889

Total Coop Enrollment: 3,213
Tot. Work-Study Enroll: 250

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 4,729,301
Total Fed. Expenditures: $ 4,174,700
Total State/Local Expenditures: $ 28,162,905
Expenditures by Location: SMSA: $ 20,690,992
Urban $ 13,074,160
Rural: $ 5,998,846
Tot. Expenditures for Disadv: $ 3,778,338
Hndcpd: $ 1,407,305
Expenditures by Pgm: Agriculture: $ NA
Distrib. Ed. $ NA
Health: $ NA
Cons. & Hmkg: $ 2,119,159
Occup. Home Ec: $ NA
Office: $ NA
Tech: $ NA
Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 2,792
EOA: 3,367
Apprenticeship: 6,379

DoL Allocations in Occup. Reported Pgms:

MDTA $ 4,871,000
EOA $ 7,061,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 1,934
MDTA OJT: 858
OIC:

MAINSTREAM: 53
WIN: 1,624
NEW CAREERS: 16

PSC: 21
NYC OS: 356
CEP: 1,297

Statistical Profile of Delaware 1970-71

Population:

Total State: 548,104
15 - 19 yrs: 51,332
20 - 24 yrs: 43,785
25 - 65 yrs: 243,772

SMSA: 499,493
Urban: 395,569
Rural: 152,535

Negro: 78,276
Am.Indian: 656
Oriental: 918
White: 466,459
Other: 1,795

Total School Enrollment:

Elem (K-8): 94,691
Sec (9-12): 40,322
Post-Sec (13-14): NA
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 27,439
Post-Sec: 718
Adult: 3,054
Total: 31,211

Voc. Ed. Enroll. by Race*:

Negro: 9,226
Spanish Surnamed Americans: 114
Am.Indian: 4
Oriental: 36
Other: 21,831
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 21,912
Urban: 1,546
Rural: 12,924

Voc. Ed. Enroll. by Program:

Agriculture: 1,244
Distrib. Ed: 1,912
Health: 467
Cons & Hmkg: 5,261
Occup. H.E.: 787
Office: 15,664
Technical: 728
Trade & Ind: 4,478

Occupationally Oriented Enrollments: *

Gen Business: 4,517
Gen. Agriculture: 375
Industrial Arts: 11,571
*Includes duplication.

Career Education Enrollment: ______
Total No. Schools Offering Voc. Ed: ______
Total No. of Voc. Ed. Programs: 1,228
Total No. Voc. Ed. Teachers: 620

Tot. Disadv. Voc. Ed. Enroll: 10,636
Tot. Hndcpd. Voc. Ed. Enroll: 504

Total Coop Enrollment: 842
Tot. Work-Study Enroll: 158

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $1,150,265
Total Fed. Expenditures: $1,123,669
Total State/Local Expenditures: $ 6,166,237
Expenditures by Location: SMSA: $4,569,649 Urban $ 0
Rural: $ 2,720,257
Tot. Expenditures for Disadv: $ 270,012 Hndcpd: $ 196,922
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 108,606 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 552
EOA: 349
Apprenticeship: 1,372

DoL Allocations in Occup. Reported Pgms:

MDTA $ 1,196,000
EOA $ 750,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 500
MDTA OJT: 52
OIC: 0

MAINSTREAM: 0
WIN: 217
NEW CAREERS: 0

PSC: 13
NYC OS: 118
CEP: 0

Statistical Profile of Dist. of Columbia 1970-71

Population:

Total State: 756,510
15 - 19 yrs: 65,609
20 - 24 yrs: 79,638
25 - 65 yrs: 352,079

SMSA: 756,510
Urban: 756,510
Rural: 0

Negro: 531,712
Am. Indian: 956
Oriental: 3,233
White: 209,272
Other: 5,337

Total School Enrollment:

Elem (K-8): 112,147
Sec (9-12): 33,066
Post-Sec (13-14):
Adult:

Total Voc. Ed. Enrollment:

Sec: 5,681
Post-Sec: 1,144
Adult: 4,183
Total: 11,008

Voc. Ed. Enroll. by Race*:

Negro: 10,810
Spanish Surnamed Americans: 77
Am. Indian: 0
Oriental: 16
Other: 245
*Figures include 140 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 11,148
Rural: 0

Voc. Ed. Enroll. by Program:

Agriculture: 123
Distrib. Ed: 759
Health: 727
Cons.& Hmkg: 2,446
Occup. H.E.: 188
Office: 945
Technical: 0
Trade & Ind: 3,381

Occupationally Oriented Enrollments:

Gen Business:
Gen. Agriculture:
Industrial Arts:

Career Education Enrollment:
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs: 184
Total No. Voc. Ed. Teachers: 253

Tot. Disadv. Voc. Ed. Enroll: 1,698
Tot. Hndcpd. Voc. Ed. Enroll: 225

Total Coop Enrollment: 1,194
Tot. Work-Study Enroll: 103

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $1,374,790
Total Fed. Expenditures: $1,672,246
Total State/Local Expenditures: $2,195,250
Expenditures by Location: SMSA: $ 0 Urban $3,867,496
Rural: $ 0
Tot. Expenditures for Disadv: $ 507,445 Hndcpd: $112,889
Expenditures by Pgm: Agriculture: $ Distrib.Ed. $
Health: $ Cons.& Hmkg: $ 208,277 Occup.Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:

MDTA: 720
EOA: 4,991
Apprenticeship: 2,491

DoL Allocations in Occup. Reported Pgms:

MDTA $16,133,000
EOA $12,305,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 561
MDTA OJT: 159
OIC: 922

MAINSTREAM: 106
WIN: 576
NEW CAREERS: 11

PSC: 136
NYC OS: 780
CEP: 2,460

Statistical Profile of Florida 1970-71

Population:

Total State: 6,789,443
15 - 19 yrs: 576,776
20 - 24 yrs: 496,517
25 - 65 yrs: 3,050,727

SMSA: 4,552,229
Urban: 5,468,137
Rural: 1,321,306

Negro: 1,041,651
Am.Indian: 6,677
Oriental: 7,223
White: 5,719,343
Other: 14,549

Total School Enrollment:

Elem (K-8): 1,136,841
Sec (9-12): 440,572
Post-Sec (13-14): 327,265
Adult: 441,717

Total Voc. Ed. Enrollment:

Sec: 201,016
Post-Sec: 69,634
Adult: 167,437
Total: 438,087

Voc. Ed. Enroll. by Race*:

Negro: 85,903
Spanish Surnamed Americans: 10,479
Am.Indian: 417
Oriental: 496
Other: 340,792
*Figures include ______ students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 337,236
Urban: 78,655
Rural: 124,303

Voc. Ed. Enroll. by Program:

Agriculture: 20,215
Distrib. Ed: 38,750
Health: 14,392
Cons.& Hmkg: 147,621
Occup. H.E.: 10,843
Office: 76,941
Technical: 28,085
Trade & Ind: 90,648

Occupationally Oriented Enrollments:

Gen Business: 4,516
Gen. Agriculture: 0
Industrial Arts: 44,479

Career Education Enrollment: 1,300+
Total No. Schools Offering Voc. Ed: 570
Total No. of Voc. Ed. Programs: 4,690
Total No. Voc. Ed. Teachers: 9,098

Tot. Disadv. Voc. Ed. Enroll: 54,077
Tot. Hndcpd. Voc. Ed. Enroll: 5,819
Total Coop Enrollment: 21,376
Tot. Work-Study Enroll: 2,266

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $12,846,204
Total Fed. Expenditures: $12,080,000
Total State/Local Expenditures: $63,310,000
Expenditures by Location: SMSA: $44,119,294 Urban $ NA
Rural: $31,270,024
Tot. Expenditures for Disadv: $ 9,782,010 Hndcpd: $ 2,083,965
Expenditures by Pgm: Agriculture: $______ Distrib.Ed. $______
Health: $______ Cons.& Hmkg: $8,933,292 Occup.Home Ec: $______
Office: $______ Tech: $______ Trade & Ind: $______

Total Occup. Reported DoL Enrollments:

MDTA: 2,846
EOA: 6,540
Apprenticeship: 9,170

DoL Allocations in Occup. Reported Pgms:

MDTA $ 5,620,000
EOA $11,266,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,323
MDTA OJT: 523
OIC: 648

MAINSTREAM: 123
WIN: 2,463
NEW CAREERS: 47

PSC: 71
NYC OS: 1,090
CEP: 2,098

Statistical Profile of Georgia 1970-71

Population:

Total State: 4,589,575
15 - 19 yrs: 442,571
20 - 24 yrs: 416,949
25 - 65 yrs: 1,989,653

SMSA: 2,670,883
Urban: 2,768,074
Rural: 1,821,501

Negro: 1,187,149
Am.Indian: 2,347
Oriental: 3,420
White: 3,391,242
Other: 5,417

Total School Enrollment:

Elem (K-8): 848,154
Sec (9-12): 317,800
Post-Sec (13-14): 50,550
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 157,829
Post-Sec: 14,814
Adult: 83,244
Total: 255,887

Voc. Ed. Enroll. by Race*:

Negro: 60,831
Spanish Surnamed Americans: 0
Am.Indian: 0
Oriental: 0
Other: 195,056
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 137,290
Urban: 94,807
Rural: 134,912

Voc. Ed. Enroll. by Program:

Agriculture: 36,706
Distrib. Ed: 14,646
Health: 5,079
Cons.& Hmkg: 65,599
Occup. H.E.: 5,030
Office: 83,050
Technical: 7,055
Trade & Ind: 36,842

Occupationally Oriented Enrollments:

Gen Business: 57,286
Gen. Agriculture: 0
Industrial Arts: 53,825

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 457
Total No. of Voc. Ed. Programs: 241
Total No. Voc. Ed. Teachers: 6,148

Tot. Disadv. Voc. Ed. Enroll: 68,997
Tot. Hndcpd. Voc. Ed. Enroll: 20,988
Total Coop Enrollment: 9,540
Tot. Work-Study Enroll: 698

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $11,721,226 Total Fed. Expenditures: $11,145,017
Total State/Local Expenditures: $35,110,501
Expenditures by Location: SMSA: $16,456,480 Urban $12,499,233
Rural: $29,799,038
Tot. Expenditures for Disadv: $5,045,890 Hndcpd: $1,190,194
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $5,698,363 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 5,514
EOA: 4,301
Apprenticeship: 4,455

DoL Allocations in Occup. Reported Pgms:

MDTA $6,039,000
EOA $8,198,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 4,061
MDTA OJT: 1,453
OIC: 2

MAINSTREAM: 413
WIN: 1,266
NEW CAREERS: 0

PSC: 72
NYC OS: 1,372
CEP: 1,176

Statistical Profile of Hawaii 1970-71

Population:

Total State: 769,913
15 - 19 yrs: 71,843
20 - 24 yrs: 81,555
25 - 65 yrs: 340,588

SMSA: 630,528
Urban: 640,035
Rural: 129,878

Negro: 7,573
Am. Indian: 1,126
Oriental: 269,346
White: 298,160
Other: 192,356

Total School Enrollment:

Elem (K-8): 129,611
Sec (9-12): 49,444
Post-Sec (13-14): 13,010
Adult:

Total Voc. Ed. Enrollment:

Sec: 23,040
Post-Sec: 7,052
Adult: 8,600
Total: 38,692

Voc. Ed. Enroll. by Race*:

Negro: 370
Spanish Surnamed Americans: 114
Am. Indian: 71
Oriental: 20,193
Other: 23,754
*Figures include 5,810 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 33,826
Urban: 9,458
Rural: 10,694

Voc. Ed. Enroll. by Program:

Agriculture: 2,700
Distrib. Ed: 1,557
Health: 475
Cons. & Hmkg: 12,991
Occup. H.E.: 522
Office: 12,200
Technical: 399
Trade & Ind: 7,842

Occupationally Oriented Enrollments**

Gen Business: 10,927
Gen. Agriculture: 0
Industrial Arts: 14,647
*Includes duplication

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 32 N.S.
Total No. of Voc. Ed. Programs: 540
Total No. Voc. Ed. Teachers: 783

Tot. Disadv. Voc. Ed. Enroll: 1,837
Tot. Hndcpd. Voc. Ed. Enroll: 1,020

Total Coop Enrollment: 976
Tot. Work-Study Enroll: 428

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 1,956,301
Total Fed. Expenditures: $ 643,490
Total State/Local Expenditures: $ 5,536,052
Expenditures by Location: SMSA: $ 5,179,959 Urban $ 0
Rural: $ 2,043,719
Tot. Expenditures for Disadv: $ 609,931 Hndcpd: $ 198,127
Expenditures by Pgm: Agriculture: $ Distrib. Ed. $
Health: $ Cons. & Hmkg: $ 680,568 Occup. Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:

MDTA: 904
EOA: 1,317
Apprenticeship: 2,776

DoL Allocations in Occup. Reported Pgms:

MDTA $ 1,257,000
EOA $ 2,709,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 598
MDTA OJT: 306
OIC: 0

MAINSTREAM: 47
WIN: 488
NEW CAREERS: 0

PSC: 5
NYC OS: 107
CEP: 670

Statistical Profile of Idaho **1970-71**

Population:

Total State: 712,567
15 - 19 yrs: 74,065
20 - 24 yrs: 53,326
25 - 65 yrs: 301,102

SMSA: 112,230
Urban: 385,434
Rural: 327,133

Negro: 2,130
Am.Indian: 6,687
Oriental: 2,753
White: 698,802
Other: 2,195

Total School Enrollment:

Elem (K-8): 123,933
Sec (9-12): 58,400
Post-Sec (13-14): 26,944
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 21,844
Post-Sec: 2,820
Adult: 5,706
Total: 30,370

Voc. Ed. Enroll. by Race*:

Negro: 62
Spanish Surnamed Americans: 618
Am.Indian: 403
Oriental: 313
Other: 20,024
*Figures include 50 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 2,898
Urban: 1,922
Rural: 27,522

Voc. Ed. Enroll. by Program:

Agriculture: 4,736
Distrib. Ed: 1,069
Health: 711
Cons & Hmkg: 12,058
Occup. H.E.: 332
Office: 5,599
Technical: 739
Trade & Ind: 4,862

Occupationally Oriented Enrollments:

Gen Business: 1,600
Gen. Agriculture: 0
Industrial Arts: 10,155

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 136
Total No. of Voc. Ed. Programs: 756
Total No. Voc. Ed. Teachers: 893

Tot. Disadv. Voc. Ed. Enroll: 881
Tot. Hndcpd. Voc. Ed. Enroll: 205
Total Coop Enrollment: 1,380
Tot. Work-Study Enroll: 97

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $2,032,673
Total Fed. Expenditures: $1,826,869
Total State/Local Expenditures: $4,426,569
Expenditures by Location: SMSA: $245,969 Urban $183,454
Rural: $6,007,469
Tot. Expenditures for Disadv: $305,700 Hndcpd: $107,433
Expenditures by Pgm: Agriculture: $793,489 Distrib.Ed. $171,928
Health: $172,633 Cons.& Hmkg: $1,077,154 Occup.Home Ec: $17,845
Office: $675,660 Tech: $450,897 Trade & Ind: $1,269,677

Total Occup. Reported DoL Enrollments:

MDTA: 915
EOA: 1,034
Apprenticeship: 638

DoL Allocations in Occup. Reported Pgms:

MDTA $1,744,000
EOA $1,274,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 741
MDTA OJT: 174
OIC: 2
MAINSTREAM: 100
WIN: 572
NEW CAREERS: 0
PSC: 0
NYC OS: 359
CEP: 1

Statistical Profile of Illinois 1970-71

Population:

Total State:	11,113,976	**SMSA:**	10,872,659	**Negro:**	1,425,674
15 - 19 yrs:	1,011,062	**Urban:**	9,229,821	**Am.Indian:**	11,413
20 - 24 yrs:	843,644	**Rural:**	1,884,155	**Oriental:**	31,773
25 - 65 yrs:	4,995,386			**White:**	9,600,381
				Other:	44,735

Total School Enrollment:

Elem (K-8): 1,687,909
Sec (9-12): 668,727
Post-Sec (13-14): 169,961
Adult:

Total Voc. Ed. Enrollment:

Sec: 432,217
Post-Sec: 62,186
Adult: 46,775
Total: 541,178

Voc. Ed. Enroll. by Race*:

Negro: 503,415
Spanish Surnamed Americans: 85,948
Am.Indian: 3,069
Oriental: 6,139
Other: 629,271
***Figures include** 686,664 **students under grade 9.**

Voc. Ed. Enroll. by Location:

SMSA: 809,960
Urban: 323,983
Rural: 539,976

Voc. Ed. Enroll. by Program:

Agriculture: 24,292
Distrib. Ed: 23,456
Health: 11,438
Cons & Hmkg: 31,734
Occup. H.E.: 22,579
Office: 236,939
Technical: 13,453
Trade & Ind: 177,287

Occupationally Oriented Enrollments:

Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment: 686,664 [1]
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs:
Total No. Voc. Ed. Teachers: 12,752

Tot. Disadv. Voc. Ed. Enroll: 110,471
Tot. Hndcpd. Voc. Ed. Enroll: 11,623
Total Coop Enrollment: 18,164
Tot. Work-Study Enroll: 838

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $16,938,697 **Total Fed. Expenditures:**$16,938,697
Total State/Local Expenditures: $166,048,381
Expenditures by Location: SMSA:$113,800,382 **Urban** $52,599,382
Rural:$ 69,186,696
Tot. Expenditures for Disadv: $ 20,360,635 **Hndcpd:** $4,078,434
Expenditures by Pgm: Agriculture: $ NA **Distrib.Ed.** $ NA
Health: $ NA **Cons.& Hmkg:** $6,439,183 **Occup.Home Ec:** $ NA
Office: $ NA **Tech:** $ NA **Trade & Ind:** $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 8,483
EOA: 9,028
Apprenticeship: 17,137

DoL Allocations in Occup. Reported Pgms:

MDTA $ 13,331,000
EOA $ 16,834,000 *
***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst:	5,406	**MAINSTREAM:**	577	**PSC:**	517
MDTA OJT:	3,077	**WIN:**	5,974	**NYC OS:**	560
OIC:	1	**NEW CAREERS:**	11	**CEP:**	1,388

[1] Note: Career Ed. Enrollment same as secondary students under grade 9.

Statistical Profile of Indiana 1970-71

Population:

Total State: 5,193,669
15 - 19 yrs: 545,903
20 - 24 yrs: 502,240
25 - 65 yrs: 2,252,293

SMSA: 3,213,598
Urban: 3,372,060
Rural: 1,821,609

Negro: 357,464
Am. Indian: 3,887
Oriental: 4,394
White: 4,820,324
Other: 7,600

Total School Enrollment:
Elem (K-8): 865,998
Sec (9-12): 348,560
Post-Sec (13-14): 7,167
Adult: NA

Total Voc. Ed. Enrollment:
Sec: 86,479
Post-Sec: 6,213
Adult: 38,646
Total: 131,338

Voc. Ed. Enroll. by Race*:
Negro: NA
Spanish Surnamed Americans: NA
Am. Indian: NA
Oriental: NA
Other: NA
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: NA
Urban: NA
Rural: NA

Voc. Ed. Enroll. by Program:
Agriculture: 20,783
Distrib. Ed: 5,005
Health: 2,644
Cons.& Hmkg: 49,535
Occup. H.E.: 2,631
Office: 19,855
Technical: 1,041
Trade & Ind: 27,572

Occupationally Oriented Enrollments:
Gen Business: 71,394
Gen. Agriculture: 3,256
Industrial Arts: 96,169

Career Education Enrollment: ____________
Total No. Schools Offering Voc. Ed: NA
Total No. of Voc. Ed. Programs: NA
Total No. Voc. Ed. Teachers: 3,531

Tot. Disadv. Voc. Ed. Enroll: 3,961
Tot. Hndcpd. Voc. Ed. Enroll: 1,203
Total Coop Enrollment: 11,918
Tot. Work-Study Enroll: 283

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 9,909,592
Total Fed. Expenditures: $ 9,909,592
Total State/Local Expenditures: $ 18,280,740
Expenditures by Location: SMSA: $ 13,821,321 Urban $ 5,109,026
Rural: $ 14,369,011
Tot. Expenditures for Disadv: $ 2,692,356 Hndcpd: $ 2,846,556
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 3,933,676 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:
MDTA: 4,135
EOA: 3,072
Apprenticeship: 7,760

DoL Allocations in Occup. Reported Pgms:
MDTA $ 4,910,000
EOA $ 5,560,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst: 2,797
MDTA OJT: 1,338
OIC: 0

MAINSTREAM: 191
WIN: 1,048
NEW CAREERS: 0

PSC: 179
NYC OS: 913
CEP: 741

Statistical Profile of Iowa 1970-71

Population:

Total State: 2,824,376
15 - 19 yrs: 273,475
20 - 24 yrs: 203,691
25 - 65 yrs: 1,163,164

SMSA: 1,691,808
Urban: 1,616,405
Rural: 1,207,971

Negro: 32,596
Am.Indian: 2,992
Oriental: 2,002
White: 2,782,762
Other: 4,024

Total School Enrollment:

Elem (K-8): 456,366
Sec (9-12): 193,437
Post-Sec (13-14): 28,733
Adult: 150,232

Total Voc. Ed. Enrollment:

Sec: 50,211
Post-Sec: 13,584
Adult: 64,116
Total: 127,911

Voc. Ed. Enroll. by Race*:

Negro: 3,600
Spanish Surnamed Americans: 471
Am.Indian: 152
Oriental: 64
Other: 123,624
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 28,196
Urban: 22,834
Rural: 76,881

Voc. Ed. Enroll. by Program:

Agriculture: 29,060
Distrib. Ed: 4,809
Health: 8,226
Cons.& Hmkg: 39,691
Occup. H.E.: 1,905
Office: 9,723
Technical: 2,198
Trade & Ind: 26,141

Occupationally Oriented Enrollments:

Gen Business: 94,125
Gen. Agriculture: 0
Industrial Arts: 42,659

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 326
Total No. of Voc. Ed. Programs: 4,496
Total No. Voc. Ed. Teachers: 5,105

Tot. Disadv. Voc. Ed. Enroll: 11,645
Tot. Hndcpd. Voc. Ed. Enroll: 2,439

Total Coop Enrollment: 8,288
Tot. Work-Study Enroll: 240

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 5,727,499
Total Fed. Expenditures: $ 5,074,073
Total State/Local Expenditures: $ 26,642,624
Expenditures by Location: SMSA: $ 16,850,301 Urban $ 14,358,667
Rural: $ 14,866,395
Tot. Expenditures for Disadv: $ 1,315,342 Hndcpd: $ 1,048,178
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 2,568,442 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 2,872
EOA: 1,903
Apprenticeship: 2,957

DoL Allocations in Occup. Reported Pgms:

MDTA $ 4,249,000
EOA $ 4,735,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,106
MDTA OJT: 766
OIC: 2

MAINSTREAM: 238
WIN: 842
NEW CAREERS: 0

PSC: 6
NYC OS: 149
CEP: 666

Statistical Profile of Kansas 1970-71

Population:

Total State: 2,246,578
15 - 19 yrs: 217,212
20 - 24 yrs: 188,422
25 - 65 yrs: 959,765

SMSA: 1,798,590
Urban: 1,484,870
Rural: 761,708

Negro: 106,977
Am. Indian: 8,672
Oriental: 2,817
White: 2,122,068
Other: 6,044

Total School Enrollment:

Elem (K-8): 332,135
Sec (9-12): 155,299
Post-Sec (13-14): 52,233
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 38,468
Post-Sec: 7,393
Adult: 47,290
Total: 93,151

Voc. Ed. Enroll. by Race*:

Negro: 7,045
Spanish Surnamed Americans: 1,545
Am. Indian: 314
Oriental: 145
Other: 93,689
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 60,088
Urban: 43,217
Rural: 42,650

Voc. Ed. Enroll. by Program:

Agriculture: 9,209
Distrib. Ed: 8,841
Health: 1,298
Cons. & Hmkg: 21,509
Occup. H.E.: 862
Office: 9,662
Technical: 537
Trade & Ind: 38,685

Occupationally Oriented Enrollments:

Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 233
Total No. of Voc. Ed. Programs: 669
Total No. Voc. Ed. Teachers: 2,469

Tot. Disadv. Voc. Ed. Enroll: 12,332
Tot. Hndcpd. Voc. Ed. Enroll: 3,988
Total Coop Enrollment: 2,177
Tot. Work-Study Enroll: 479

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 4,942,801
Total Fed. Expenditures: $ 4,609,569
Total State/Local Expenditures: $ 11,744,355
Expenditures by Location: SMSA: $ 5,633,420 Urban $ 4,351,353
Rural: $ 10,720,504
Tot. Expenditures for Disadv: $ 1,639,411 Hndcpd: $ 820,161
Expenditures by Pgm: Agriculture: $ NA Distrib. Ed. $ NA
Health: $ NA Cons. & Hmkg: $ 1,298,746 Occup. Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 2,920
EOA: 1,781
Apprenticeship: 1,766

DoL Allocations in Occup. Reported Pgms:

MDTA $ 3,397,000
EOA $ 3,367,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,681
MDTA OJT: 239
OIC: 0

MAINSTREAM: 130
WIN: 1,052
NEW CAREERS: 0

PSC: 246
NYC OS: 352
CEP: 1

Statistical Profile of Kentucky 1970-71

Population:

Total State: 3,218,706
15 - 19 yrs: 318,756
20 - 24 yrs: 265,282
25 - 65 yrs: 1,375,506

SMSA: 2,872,225
Urban: 1,684,053
Rural: 1,534,653

Negro: 230,793
Am. Indian: 1,531
Oriental: 1,653
White: 2,981,766
Other: 2,963

Total School Enrollment:

Elem (K-8): 514,064
Sec (9-12): 205,690
Post-Sec (13-14): 11,000
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 87,872
Post-Sec: 9,308
Adult: 48,144
Total: 145,324

Voc. Ed. Enroll. by Race*:

Negro: 24,278
Spanish Surnamed Americans: 314
Am. Indian: 871
Oriental: 162
Other: 119,699
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 41,932
Urban: 13,587
Rural: 103,382

Voc. Ed. Enroll. by Program:

Agriculture: 19,316
Distrib. Ed: 9,713
Health: 2,508
Cons & Hmkg: 49,539
Occup. H.E.: 1,666
Office: 19,713
Technical: 1,143
Trade & Ind: 35,977

Occupationally Oriented Enrollments:

Gen Business: 51,580
Gen. Agriculture: 230
Industrial Arts: 30,062

Career Education Enrollment: 7,519
Total No. Schools Offering Voc. Ed: 404
Total No. of Voc. Ed. Programs: 3,019
Total No. Voc. Ed. Teachers: 3,455

Tot. Disadv. Voc. Ed. Enroll: 10,413
Tot. Hndcpd. Voc. Ed. Enroll: 1,602
Total Coop Enrollment: 3,259
Tot. Work-Study Enroll: 856

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 8,267,828
Total Fed. Expenditures: $ 6,492,518
Total State/Local Expenditures: $ 21,807,069
Expenditures by Location: SMSA: $ 8,737,493 Urban $ 2,621,248
Rural: $ 19,562,094
Tot. Expenditures for Disadv: $ 1,865,541 Hndcpd: $ 696,088
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 4,320,895 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 3,170
EOA: 4,512
Apprenticeship: 3,615

DoL Allocations in Occup. Reported Pgms:

MDTA $ 4,378,000
EOA $ 15,215,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,098
MDTA OJT: 1,072
OIC: 0
MAINSTREAM: 740
WIN: 1,380
NEW CAREERS: 2
PSC: 46
NYC OS: 793
CEP: 1,551

Statistical Profile of Louisiana 1970-71

Population:

Total State: 3,641,306
15 - 19 yrs: 375,958
20 - 24 yrs: 299,309
25 - 65 yrs: 1,502,893

SMSA: 951,433
Urban: 2,406,150
Rural: 1,235,156

Negro: 1,086,832
Am.Indian: 5,294
Oriental: 2,463
White: 2,541,498
Other: 5,219

Total School Enrollment:

Elem (K-8): 597,978
Sec (9-12): 232,008
Post-Sec (13-14): NA
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 126,251
Post-Sec: 19,076
Adult: 29,046
Total: 174,373

Voc. Ed. Enroll. by Race*:

Negro: 61,599
Spanish Surnamed Americans: 620
Am.Indian: 73
Oriental: 142
Other: 111,969
*Figures include 30 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 74,401
Urban: 52,016
Rural: 100,002

Voc. Ed. Enroll. by Program:

Agriculture: 19,962
Distrib. Ed: 9,304
Health: 3,378
Cons.& Hmkg: 53,159
Occup. H.E.: 1,332
Office: 60,006
Technical: 3,553
Trade & Ind: 23,679

Occupationally Oriented Enrollments:

Gen Business: 0
Gen. Agriculture: 0
Industrial Arts: 31,911

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs: 3,121
Total No. Voc. Ed. Teachers: 3,112

Tot. Disadv. Voc. Ed. Enroll: 55,577
Tot. Hndcpd. Voc. Ed. Enroll: 1,048

Total Coop Enrollment: 4,698
Tot. Work-Study Enroll: 1,116

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $9,453,654
Total Fed. Expenditures: $8,935,299
Total State/Local Expenditures: $14,273,746
Expenditures by Location: SMSA: $12,932,746 Urban $10,797,227
Rural: $10,275,856
Tot. Expenditures for Disadv: $5,056,185 Hndcpd: $976,490
Expenditures by Pgm: Agriculture: $NA Distrib.Ed. $NA
Health: $NA Cons.& Hmkg: $3,444,353 Occup.Home Ec: $NA
Office: $NA Tech: $NA Trade & Ind: $NA

Total Occup. Reported DoL Enrollments:

MDTA: 2,615
EOA: 3,175
Apprenticeship: 3,634

DoL Allocations in Occup. Reported Pgms:

MDTA $4,911,000
EOA $7,094,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 1,714
MDTA OJT: 901
OIC: 1

MAINSTREAM: 279
WIN: 982
NEW CAREERS: 35

PSC: 161
NYC OS: 961
CEP: 756

Statistical Profile of Maine **1970-71**

Population:

Total State: 992,048
15 - 19 yrs: 93,361
20 - 24 yrs: 75,030
25 - 65 yrs: 423,084

SMSA: 214,099
Urban: 504,157
Rural: 487,891

Negro: 2,800
Am.Indian: 2,195
Oriental: 554
White: 985,276
Other: 1,223

Total School Enrollment:
Elem (K-8): 177,348
Sec (9-12): 67,160
Post-Sec (13-14): NA
Adult: 27,800

Total Voc. Ed. Enrollment:
Sec: 16,458
Post-Sec: 1,628
Adult: 5,338
Total: 23,424

Voc. Ed. Enroll. by Race*:
Negro: 29
Spanish Surnamed Americans: 1
Am.Indian: 20
Oriental: 14
Other: 23,400
***Figures include** 40 **students under grade 9.**

Voc. Ed. Enroll. by Location:
SMSA: 5,795
Urban: 3,477
Rural: 17,669

Voc. Ed. Enroll. by Program:
Agriculture: 894
Distrib. Ed: 823
Health: 922
Cons & Hmkg: 2,429
Occup. H.E.: 559
Office: 8,987
Technical: 1,225
Trade & Ind: 7,472

Occupationally Oriented Enrollments:
Gen Business: 11,961
Gen. Agriculture: 779
Industrial Arts: 13,714

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 121
Total No. of Voc. Ed. Programs: 938
Total No. Voc. Ed. Teachers: 1,310

Tot. Disadv. Voc. Ed. Enroll: 594
Tot. Hndcpd. Voc. Ed. Enroll: 177
Total Coop Enrollment: 671
Tot. Work-Study Enroll: 200

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $**2,502,425 **Total Fed. Expenditures:$2,383,438
Total State/Local Expenditures: $7,780,920
Expenditures by Location: SMSA:$ 1,531,093 **Urban $** 713,996
Rural:$ 6,559,382
Tot. Expenditures for Disadv: $ 406,576 **Hndcpd: $**217,420
Expenditures by Pgm: Agriculture: $147,499 **Distrib.Ed. $** 31,292
Health: $ NA **Cons.& Hmkg: $**867,669 **Occup.Home Ec: $** NA
Office: $2,061,799 **Tech: $** NA **Trade & Ind: $**181,918

Total Occup. Reported DoL Enrollments:
MDTA: 1,012
EOA: 2,177
Apprenticeship: 1,347

DoL Allocations in Occup. Reported Pgms:
MDTA $ 1,465,000
EOA $ 4,532,000 *****
***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:
MDTA Inst: 597
MDTA OJT: 415
OIC: 1
MAINSTREAM: 181
WIN: 914
NEW CAREERS: 0
PSC: 0
NYC OS: 300
CEP: 781

Statistical Profile of Maryland 1970-71

Population:

Total State: 3,922,399
15 - 19 yrs: 356,139
20 - 24 yrs: 325,455
25 - 65 yrs: 1,782,436

SMSA: 3,307,337
Urban: 3,003,935
Rural: 918,464

Negro: 699,479
Am.Indian: 4,239
Oriental: 10,253
White: 3,194,888
Other: 13,540

Total School Enrollment:

Elem (K-8): 661,928
Sec (9-12): 260,123
Post-Sec (13-14): 43,051
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 100,668
Post-Sec: 12,758
Adult: 28,348
Total: 141,774

Voc. Ed. Enroll. by Race*:

Negro: 31,322
Spanish Surnamed Americans: 523
Am.Indian: 461
Oriental: 582
Other: 129,873
*Figures include 20,987 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 73,220
Urban: 28,469
Rural: 78,370

Voc. Ed. Enroll. by Program:

Agriculture: 2,951
Distrib. Ed: 4,439
Health: 2,312
Cons.& Hmkg: 39,935
Occup. H.E.: 2,210
Office: 52,573
Technical: 5,709
Trade & Ind: 27,365

Occupationally Oriented Enrollments:

Gen Business: 73,336
Gen. Agriculture: 210
Industrial Arts: 80,032

Career Education Enrollment: 9,074
Total No. Schools Offering Voc. Ed: 273
Total No. of Voc. Ed. Programs: 1,746
Total No. Voc. Ed. Teachers: 3,830

Tot. Disadv. Voc. Ed. Enroll: 30,982
Tot. Hndcpd. Voc. Ed. Enroll: 7,658
Total Coop Enrollment: 3,651
Tot. Work-Study Enroll: 411

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 7,088,301 Total Fed. Expenditures: $ 5,115,036
Total State/Local Expenditures: $ 50,085,790
Expenditures by Location: SMSA: $ 29,949,162 Urban $ 15,806,463
Rural: $ 26,558,691
Tot. Expenditures for Disadv: $ 3,942,463 Hndcpd: $ 1,823,297
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 8,149,901 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 2,658
EOA: 5,368
Apprenticeship: 3,227

DoL Allocations in Occup. Reported Pgms:

MDTA $ 4,493,000
EOA $ 8,567,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 1,928
MDTA OJT: 730
OIC: 9

MAINSTREAM: 42
WIN: 2,244
NEW CAREERS:

PSC: 185
NYC OS: 659
CEP: 2,229

Statistical Profile of Massachusetts 1970-71

Population:

Total State: 5,689,170
15 - 19 yrs: 555,393
20 - 24 yrs: 514,556
25 - 65 yrs: 2,506,201

SMSA: 4,817,915
Urban: 4,810,449
Rural: 878,721

Negro: 175,817
Am. Indian: 4,475
Oriental: 18,405
White: 5,477,624
Other: 12,849

Total School Enrollment:

Elem (K-8): 821,687
Sec (9-12): 344,417
Post-Sec (13-14): 3,865
Adult: ______

Total Voc. Ed. Enrollment:

Sec: 95,411
Post-Sec: 8,711
Adult: 17,828
Total: 121,950

Voc. Ed. Enroll. by Race*:

Negro: 5,414
Spanish Surnamed Americans: 1,677
Am. Indian: 63
Oriental: 378
Other: 114,418
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 47,714
Urban: 38,696
Rural: 24,236

Voc. Ed. Enroll. by Program:

Agriculture: 983
Distrib. Ed: 3,984
Health: 3,046
Cons.& Hmkg: 4,727
Occup. H.E.: 2,242
Office: 70,911
Technical: 2,006
Trade & Ind: 33,534

Occupationally Oriented Enrollments:*

Gen Business: 63,480
Gen. Agriculture: 882
Industrial Arts: 4,081
*Includes duplication.

Career Education Enrollment: ______
Total No. Schools Offering Voc. Ed: 261
Total No. of Voc. Ed. Programs: 3,039
Total No. Voc. Ed. Teachers: 4,383

Tot. Disadv. Voc. Ed. Enroll: 3,478
Tot. Hndcpd. Voc. Ed. Enroll: 812
Total Coop Enrollment: 2,653
Tot. Work-Study Enroll: 651

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 9,202,515
Total Fed. Expenditures: $ 9,737,007
Total State/Local Expenditures: $112,347,876.
Expenditures by Location: SMSA: $ 110,594,429 Urban $38,632,777
Rural: $ 11,490,454
Tot. Expenditures for Disadv: $ 2,711,793 Hndcpd: $ 2,067,996
Expenditures by Pgm: Agriculture: $______ Distrib.Ed. $______
Health: $______ Cons.& Hmkg: $1,056,456 Occup.Home Ec: $______
Office: $______ Tech: $______ Trade & Ind: $______

Total Occup. Reported DoL Enrollments:

MDTA: 5,989
EOA: 7,546
Apprenticeship: 7,960

DoL Allocations in Occup. Reported Pgms:

MDTA $ 9,163,000
EOA $17,831,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 4,675
MDTA OJT: 1,314
OIC: 32
MAINSTREAM: 109
WIN: 5,878
NEW CAREERS: 17
PSC: 24
NYC OS: 658
CEP: 828

Statistical Profile of Michigan 1970-71

Population:

Total State: 8,875,083
15 - 19 yrs: 872,624
20 - 24 yrs: 702,742
25 - 65 yrs: 3,839,216

SMSA: 7,380,243
Urban: 6,553,773
Rural: 2,321,310

Negro: 991,066
Am.Indian: 16,854
Oriental: 11,628
White: 7,833,474
Other: 22,061

Total School Enrollment:

Elem (K-8): 1,498,562
Sec (9-12): 612,792
Post-Sec (13-14): 126,647
Adult: 131,860

Total Voc. Ed. Enrollment:

Sec: 164,234
Post-Sec: 42,632
Adult: 113,189
Total: 320,055

Voc. Ed. Enroll. by Race*:

Negro: 47,290
Spanish Surnamed Americans: 2,516
Am.Indian: 449
Oriental: 1,090
Other: 268,710
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 173,498
Urban: 73,813
Rural: 72,744

Voc. Ed. Enroll. by Program:

Agriculture: 14,435
Distrib. Ed: 34,405
Health: 10,063
Cons.& Hmkg: 82,658
Occup. H.E.: 9,233
Office: 61,429
Technical: 11,555
Trade & Ind: 83,502

Occupationally Oriented Enrollments:

Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 421
Total No. of Voc. Ed. Programs: 6,518
Total No. Voc. Ed. Teachers: 8,742

Tot. Disadv. Voc. Ed. Enroll: 19,349
Tot. Hndcpd. Voc. Ed. Enroll: 1,855

Total Coop Enrollment: 22,613
Tot. Work-Study Enroll: 1,384

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 15,925,142 Total Fed. Expenditures: $ 15,131,134
Total State/Local Expenditures: $ 37,064,066
Expenditures by Location: SMSA: $ 34,944,138 Urban $ 6,888,946
Rural: $ 17,093,066
Tot. Expenditures for Disadv: $ 3,889,606 Hndcpd: $ 1,269,381
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 3,162,564 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 6,665
EOA: 6,684
Apprenticeship: 19,485

DoL Allocations in Occup. Reported Pgms:

MDTA $ 12,438,000
EOA $ 14,257,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 5,132
MDTA OJT: 1,533
OIC: 7

MAINSTREAM: 29
WIN: 4,891
NEW CAREERS: 0

PSC: 28
NYC OS: 1,213
CEP: 516

Statistical Profile of Minnesota 1970-71

Population:

Total State: 3,804,971
15 - 19 yrs: 373,405
20 - 24 yrs: 292,037
25 - 65 yrs: 1,581,183

SMSA: 2,199,235
Urban: 2,527,308
Rural: 1,277,663

Negro: 34,868
Am.Indian: 23,128
Oriental: 5,025
White: 3,736,038
Other: 5,912

Total School Enrollment:

Elem (K-8): 644,858
Sec (9-12): 279,180
Post-Sec (13-14): 124,845
Adult: 206,945

Total Voc. Ed. Enrollment:

Sec: 104,837
Post-Sec: 20,122
Adult: 94,126
Total: 219,085

Voc. Ed. Enroll. by Race*:

Negro: NA
Spanish Surnamed Americans: NA
Am.Indian: NA
Oriental: NA
Other: NA
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 124,744
Urban: 63,918
Rural: 161,458

Voc. Ed. Enroll. by Program:

Agriculture: 31,917
Distrib. Ed: 14,752
Health: 4,191
Cons.& Hmkg: 69,301
Occup. H.E.: 11,950
Office: 28,560
Technical: 7,427
Trade & Ind: 50,987

Occupationally Oriented Enrollments:

Gen Business: 0
Gen. Agriculture: 0
Industrial Arts: 85,102

Career Education Enrollment: 5,000
Total No. Schools Offering Voc. Ed: 387
Total No. of Voc. Ed. Programs: 4,335
Total No. Voc. Ed. Teachers: 5,770

Tot. Disadv. Voc. Ed. Enroll: 10,888
Tot. Hndcpd. Voc. Ed. Enroll: 5,856

Total Coop Enrollment: 9,531
Tot. Work-Study Enroll: 492

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $7,642,851
Total Fed. Expenditures: $7,901,314
Total State/Local Expenditures: $40,383,975
Expenditures by Location: SMSA: $19,218,815 Urban $9,933,120
Rural: $29,056,974
Tot. Expenditures for Disadv: $2,456,524 Hndcpd: $622,986
Expenditures by Pgm: Agriculture: $_____ Distrib.Ed. $_____
Health: $_____ Cons.& Hmkg: $3,989,564 Occup.Home Ec: $_____
Office: $_____ Tech: $_____ Trade & Ind: $_____

Total Occup. Reported DoL Enrollments:

MDTA: 3,106
EOA: 4,465
Apprenticeship: 7,672

DoL Allocations in Occup. Reported Pgms:

MDTA $6,951,000
EOA $10,681,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,286
MDTA OJT: 820
OIC: 833
MAINSTREAM: 355
WIN: 1,362
NEW CAREERS: 82
PSC: 39
NYC OS: 330
CEP: 1,464

Statistical Profile of Mississippi 1970-71

Population:

Total State:	2,216,912	**SMSA:**	393,488	**Negro:**	815,770
15 - 19 yrs:	232,971	**Urban:**	986,642	**Am.Indian:**	4,113
20 - 24 yrs:	173,332	**Rural:**	1,230,270	**Oriental:**	1,902
25 - 65 yrs:	888,484			**White:**	1,393,283
				Other:	1,844

Total School Enrollment:		**Total Voc. Ed. Enrollment:**	
Elem (K-8):	312,091	**Sec:**	54,729
Sec (9-12):	222,302	**Post-Sec:**	8,268
Post-Sec (13-14):	57,073	**Adult:**	38,771
Adult:	56,831	**Total:**	101,768

Voc. Ed. Enroll. by Race*:		**Voc. Ed. Enroll. by Location:**	
Negro:	40,348	**SMSA:**	13,858
Spanish Surnamed Americans:	32	**Urban:**	5,428
Am.Indian:	88	**Rural:**	92,654
Oriental:	19		
Other:	61,281		

***Figures include** 0 **students under grade 9.**

Voc. Ed. Enroll. by Program:		**Occupationally Oriented Enrollments:**	
Agriculture:	22,237	**Gen Business:**	56,617
Distrib. Ed:	4,791	**Gen. Agriculture:**	72
Health:	2,046	**Industrial Arts:**	12,078
Cons.& Hmkg:	30,522		
Occup. H.E.:	1,695	**Career Education Enrollment:**	8,000
Office:	7,184	**Total No. Schools Offering Voc. Ed:**	418
Technical:	6,229	**Total No. of Voc. Ed. Programs:**	4,460
Trade & Ind:	22,039	**Total No. Voc. Ed. Teachers:**	2,073

Tot. Disadv. Voc. Ed. Enroll:	7,357	**Total Coop Enrollment:**	2,098
Tot. Hndcpd. Voc. Ed. Enroll:	2,490	**Tot. Work-Study Enroll:**	449

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 6,350,727 **Total Fed. Expenditures:** $ 5,700,562

Total State/Local Expenditures: $ 15,134,375

Expenditures by Location: SMSA: $ 3,997,180 **Urban** $ 0

Rural: $ 16,837,757

Tot. Expenditures for Disadv: $ 2,182,673 **Hndcpd:** $ 503,148

Expenditures by Pgm: Agriculture: $ NA **Distrib.Ed.** $ NA

Health: $ NA **Cons.& Hmkg:** $ 2,338,582 **Occup.Home Ec:** $ NA

Office: $ NA **Tech:** $ NA **Trade & Ind:** $ NA

Total Occup. Reported DoL Enrollments:		**DoL Allocations in Occup. Reported Pgms:**	
MDTA:	2,816	**MDTA**	$ 4,013,000
EOA:	3,103	**EOA**	$ 8,072,000 *
Apprenticeship:	1,239		

***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst:	1,700	**MAINSTREAM:**	166	**PSC:**	72
MDTA OJT:	1,116	**WIN:**	541	**NYC OS:**	836
OIC:	2	**NEW CAREERS:**	0	**CEP:**	1,486

Statistical Profile of Missouri 1970-71

Population:

Total State: 4,676,501
15 - 19 yrs: 429,653
20 - 24 yrs: 354,697
25 - 65 yrs: 2,041,068

SMSA: 2,997,071
Urban: 3,277,662
Rural: 1,398,839

Negro: 480,172
Am.Indian: 5,405
Oriental: 5,197
White: 4,177,495
Other: 8,232

Total School Enrollment:

Elem (K-8): 788,469
Sec (9-12): 296,364
Post-Sec (13-14): 32,427
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 98,547
Post-Sec: 11,797
Adult: 33,288
Total: 143,632

Voc. Ed. Enroll. by Race*:

Negro: 25,039
Spanish Surnamed Americans: 702
Am.Indian: 15
Oriental: 395
Other: 124,105
*Figures include 6,624 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 75,848
Urban: 35,182
Rural: 74,408

Voc. Ed. Enroll. by Program:

Agriculture: 17,015
Distrib. Ed: 11,460
Health: 5,269
Cons.& Hmkg: 58,132
Occup. H.E.: 2,023
Office: 18,268
Technical: 4,085
Trade & Ind: 26,492

Occupationally Oriented Enrollments:

Gen Business: 17,602
Gen. Agriculture: 127
Industrial Arts: 65,782

Career Education Enrollment: 8,640
Total No. Schools Offering Voc. Ed: 363
Total No. of Voc. Ed. Programs: NA
Total No. Voc. Ed. Teachers: 4,581

Tot. Disadv. Voc. Ed. Enroll: 11,744
Tot. Hndcpd. Voc. Ed. Enroll: 2,115

Total Coop Enrollment: 6,845
Tot. Work-Study Enroll: 487

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 9,353,185 Total Fed. Expenditures: $ 9,290,280
Total State/Local Expenditures: $ 27,130,725
Expenditures by Location: SMSA: $ 17,003,309 Urban $ 7,588,252
Rural: $ 19,417,696
Tot. Expenditures for Disadv: $ 1,792,505 Hndcpd: $ 1,180,343
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 3,936,155 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 4,008
EOA: 4,955
Apprenticeship: 5,150

DoL Allocations in Occup. Reported Pgms:

MDTA $ 7,384,000
EOA $ 13,083,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,911
MDTA OJT: 1,097
OIC: 94

MAINSTREAM: 444
WIN: 1,123
NEW CAREERS: 13

PSC: 80
NYC OS: 482
CEP: 2,649

Statistical Profile of Montana **1970-71**

Population:

Total State:	694,409	SMSA:	169,171	Negro:	1,995
15 - 19 yrs:	70,346	Urban:	370,676	Am.Indian:	27,130
20 - 24 yrs:	51,522	Rural:	323,733	Oriental:	863
25 - 65 yrs:	292,875			White:	663,043
				Other:	1,378

Total School Enrollment:

Elem (K-8): 120,860
Sec (9-12): 53,672
Post-Sec (13-14): 4,718
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 16,707
Post-Sec: 3,218
Adult: 7,403
Total: 27,328

Voc. Ed. Enroll. by Race*:

Negro: 80
Spanish Surnamed Americans: 25
Am.Indian: 2,175
Oriental: 2
Other: 25,046
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 9,522
Urban: 8,543
Rural: 24,787

Voc. Ed. Enroll. by Program:

Agriculture: 3,589
Distrib. Ed: 1,489
Health: 582
Cons.& Hmkg: 8,777
Occup. H.E.: 293
Office: 5,351
Technical: 653
Trade & Ind: 6,594

Occupationally Oriented Enrollments:

Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment: 3,500
Total No. Schools Offering Voc. Ed: 170
Total No. of Voc. Ed. Programs: 656
Total No. Voc. Ed. Teachers: 767

Tot. Disadv. Voc. Ed. Enroll: 2,988
Tot. Hndcpd. Voc. Ed. Enroll: 1,053

Total Coop Enrollment: 835
Tot. Work-Study Enroll: 80

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ NA
Total Fed. Expenditures: $ 1,911,098
Total State/Local Expenditures: $ 4,907,446
Expenditures by Location: SMSA: $ 1,624,944 Urban $ 1,393,935
Rural: $ 5,256,600
Tot. Expenditures for Disadv: $ 407,171 Hndcpd: $ 155,522
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 761,060 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 999
EOA: 1,388
Apprenticeship: 963

DoL Allocations in Occup. Reported Pgms:

MDTA $ 1,937,000
EOA $ 2,479,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst:	726	MAINSTREAM:	192	PSC:	28
MDTA OJT:	273	WIN:	456	NYC OS:	213
OIC:	2	NEW CAREERS:	0	CEP:	497

Statistical Profile of Nebraska 1970-71

Population:
Total State: 1,483,493 SMSA: 824,303 Negro: 39,911
15 - 19 yrs: 143,175 Urban: 912,598 Am.Indian: 6,624
20 - 24 yrs: 114,687 Rural: 570,895 Oriental: 1,865
25 - 65 yrs: 621,686 White: 1,432,867
Other: 2,226

Total School Enrollment:
Elem (K-8): 190,125
Sec (9-12): 142,770
Post-Sec (13-14): 9,390
Adult:

Total Voc. Ed. Enrollment:
Sec: 38,336
Post-Sec: 5,362
Adult: 21,620
Total: 65,318

Voc. Ed. Enroll. by Race*:
Negro: 5,898
Spanish Surnamed Americans: 460
Am.Indian: 98
Oriental: 21
Other: 53,073
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: 2,565
Urban: 12,664
Rural: 49,865

Voc. Ed. Enroll. by Program:
Agriculture: 7,537
Distrib. Ed: 4,391
Health: 2,475
Cons & Hmkg: 26,563
Occup. H.E.: 369
Office: 7,399
Technical: 612
Trade & Ind: 14,944

Occupationally Oriented Enrollments*
Gen Business: 60,239
Gen. Agriculture: 894
Industrial Arts: 38,986
*Includes duplication

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 198
Total No. of Voc. Ed. Programs: 508
Total No. Voc. Ed. Teachers: 1,648

Tot. Disadv. Voc. Ed. Enroll: 2,834
Tot. Hndcpd. Voc. Ed. Enroll: 1,417
Total Coop Enrollment: 1,748
Tot. Work-Study Enroll: 274

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 3,175,513
Total Fed. Expenditures: $ 3,026,949
Total State/Local Expenditures: $ 8,079,680
Expenditures by Location: SMSA: $ NA Urban $ NA
Rural: $ NA
Tot. Expenditures for Disadv: $ 798,820 Hndcpd: $ 298,072
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 1,309,049 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:
MDTA: 1,422
EOA: 1,898
Apprenticeship: 1,233

DoL Allocations in Occup. Reported Pgms:
MDTA $ 1,952,000
EOA $ 3,077,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst: 1,156 MAINSTREAM: 145 PSC: 10
MDTA OJT: 266 WIN: 359 NYC OS: 120
OIC: 796 NEW CAREERS: 0 CEP: 468

Statistical Profile of Nevada 1970-71

Population:

Total State:	488,738	SMSA:	394,356	Negro:	27,762
15 - 19 yrs:	40,185	Urban:	395,336	Am.Indian:	7,933
20 - 24 yrs:	39,075	Rural:	93,402	Oriental:	2,042
25 - 65 yrs:	234,454			White:	448,177
				Other:	2,824

Total School Enrollment:

Elem (K-8): 91,754
Sec (9-12): 33,984
Post-Sec (13-14): 12,714
Adult: 15,178

Total Voc. Ed. Enrollment:

Sec: 12,596
Post-Sec: 1,936
Adult: 3,578
Total: 18,110

Voc. Ed. Enroll. by Race*:

Negro: 1,052
Spanish Surnamed Americans: 528
Am.Indian: 563
Oriental: 79
Other: 16,433
*Figures include 545 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 11,965
Urban: 6,746
Rural: 6,590

Voc. Ed. Enroll. by Program:

Agriculture: 870
Distrib. Ed: 635
Health: 719
Cons.& Hmkg: 3,526
Occup. H.E.: 505
Office: 4,871
Technical: 1,931
Trade & Ind: 4,874

Occupationally Oriented Enrollments:

Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment: 282
Total No. Schools Offering Voc. Ed: 63
Total No. of Voc. Ed. Programs: 414
Total No. Voc. Ed. Teachers: 582

Tot. Disadv. Voc. Ed. Enroll: 2,819
Tot. Hndcpd. Voc. Ed. Enroll: 114
Total Coop Enrollment: 1,156
Tot. Work-Study Enroll: 54

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 986,740
Total Fed. Expenditures: $ 928,451
Total State/Local Expenditures: $ 2,807,162
Expenditures by Location: SMSA: $ 2,222,503 Urban $ 2,222,503
Rural: $ 1,513,110
Tot. Expenditures for Disadv: $ 607,561 Hndcpd: $ 260,028
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 151,687 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 822
EOA: 904
Apprenticeship: 1,035

DoL Allocations in Occup. Reported Pgms:

MDTA $ 1,273,000
EOA $ 2,444,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst:	561	MAINSTREAM:	132	PSC:	0
MDTA OJT:	261	WIN:	99	NYC OS:	154
OIC:	0	NEW CAREERS:	0	CEP:	519

Statistical Profile of New Hampshire 1970-71

Population:

Total State: 737,681
15 - 19 yrs: 67,264
20 - 24 yrs: 58,522
25 - 65 yrs: 319,207

SMSA: 340,876
Urban: 416,040
Rural: 321,641

Negro: 2,505
Am.Indian: 361
Oriental: 780
White: 733,106
Other: 929

Total School Enrollment:

Elem (K-8): 115,654
Sec (9-12): 44,730
Post-Sec (13-14): 1,820
Adult: 4,560

Total Voc. Ed. Enrollment:

Sec: 18,378
Post-Sec: 1,820
Adult: 2,884
Total: 23,082

Voc. Ed. Enroll. by Race*:

Negro: 13
Spanish Surnamed Americans: 6
Am.Indian: NA
Oriental: 0
Other: 23,063
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 2,213
Urban: 1,622
Rural: 20,869

Voc. Ed. Enroll. by Program:

Agriculture: 1,239
Distrib. Ed: 285
Health: 517
Cons & Hmkg: 6,331
Occup. H.E.: 86
Office: 9,927
Technical: 311
Trade & Ind: 3,996

Occupationally Oriented Enrollments:

Gen Business: 1,955
Gen. Agriculture: 75
Industrial Arts: 1,600

Career Education Enrollment: 140
Total No. Schools Offering Voc. Ed: 36
Total No. of Voc. Ed. Programs: 215
Total No. Voc. Ed. Teachers: 724

Tot. Disadv. Voc. Ed. Enroll: 547
Tot. Hndcpd. Voc. Ed. Enroll: 213

Total Coop Enrollment: 366
Tot. Work-Study Enroll: 67

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 1,663,530
Total Fed. Expenditures: $ 1,605,387
Total State/Local Expenditures: $ 4,200,669
Expenditures by Location: SMSA: $ 613,487 Urban $ 54,242
Rural: $ 5,192,569
Tot. Expenditures for Disadv: $ 469,376 Hndcpd: $ 375,802
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 524,885 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 742
EOA: 591
Apprenticeship: 548

DoL Allocations in Occup. Reported Pgms:

MDTA $ 1,038,000
EOA $ 1,919,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 679
MDTA OJT: 63
OIC: 0

MAINSTREAM: 15
WIN: 0
NEW CAREERS: 0

PSC: 0
NYC OS: 89
CEP: 486

Statistical Profile of New Jersey 1970-71

Population:

Total State: 7,168,164
15 - 19 yrs: 611,831
20 - 24 yrs: 509,198
25 - 65 yrs: 3,357,863

SMSA: 5,551,330
Urban: 6,373,405
Rural: 794,759

Negro: 770,292
Am. Indian: 4,706
Oriental: 14,914
White: 6,349,908
Other: 28,344

Total School Enrollment:

Elem (K-8): 1,087,249
Sec (9-12): 411,408
Post-Sec (13-14): 37,621
Adult: 340,091

Total Voc. Ed. Enrollment:

Sec: 181,476
Post-Sec: 20,530
Adult: 90,510
Total: 292,516

Voc. Ed. Enroll. by Race*:

Negro: 55,381
Spanish Surnamed Americans: 12,764
Am.Indian: NA
Oriental: ,985
Other: 260,657
*Figures include 37,271 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 222,561
Urban: 75,379
Rural: 53,138

Voc. Ed. Enroll. by Program:

Agriculture: 2,205
Distrib. Ed: 14,100
Health: 6,095
Cons.& Hmkg: 86,226
Occup. H.E.: 7,061
Office: 115,995
Technical: 6,814
Trade & Ind: 51,174

Occupationally Oriented Enrollments:*

Gen Business: 16,100
Gen. Agriculture:
Industrial Arts: 69,620
* Includes duplication.

Career Education Enrollment:
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs: 8,795
Total No. Voc. Ed. Teachers: 8,158

Tot. Disadv. Voc. Ed. Enroll: 16,484
Tot. Hndcpd. Voc. Ed. Enroll: 6,292
Total Coop Enrollment: 10,174
Tot. Work-Study Enroll: 1,741

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $11,397,086
Total Fed. Expenditures: $12,026,302
Total State/Local Expenditures: $ 27,226,040
Expenditures by Location: SMSA: $ 22,049,714 Urban $ 4,802,171
Rural: $ 17,202,628
Tot. Expenditures for Disadv: $ 4,246,510 Hndcpd: $ 1,633,969
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 1,155,367 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 7,625
EOA: 8,601
Apprenticeship: 8,030

DoL Allocations in Occup. Reported Pgms:

MDTA $ 12,353,000
EOA $ 13,749,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 5,664
MDTA OJT: 1,961
OIC: 802
MAINSTREAM: 203
WIN: 3,061
NEW CAREERS: 4
PSC: 51
NYC OS: 735
CEP: 3,745

Statistical Profile of New Mexico 1970-71

Population:

Total State: 1,016,000 SMSA: 315,774 Negro: 19,555
15 - 19 yrs: 105,164 Urban: 708,775 Am.Indian: 72,788
20 - 24 yrs: 82,695 Rural: 307,225 Oriental: 1,503
25 - 65 yrs: 418,835 White: 915,815
Other: 6,339

Total School Enrollment:
Elem (K-8): 200,982
Sec (9-12): 80,911
Post-Sec (13-14): 6,792
Adult: 13,269

Total Voc. Ed. Enrollment:
Sec: 35,305
Post-Sec: 6,078
Adult: 7,795
Total: 49,178

Voc. Ed. Enroll. by Race*:
Negro: 717
Spanish Surnamed Americans: 36,297
Am.Indian: 4,777
Oriental: 145
Other: 7,242
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: 18,649
Urban: 18,649
Rural: 30,529

Voc. Ed. Enroll. by Program:
Agriculture: 4,226
Distrib. Ed: 1,765
Health: 1,075
Cons.& Hmkg: 15,131
Occup. H.E.: 802
Office: 18,518
Technical: 605
Trade & Ind: 6,960

Occupationally Oriented Enrollments:
Gen Business: NA
Gen. Agriculture: NA
Industrial Arts: NA

Career Education Enrollment: 0
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs: 575
Total No. Voc. Ed. Teachers: 925

Tot. Disadv. Voc. Ed. Enroll: 22,817 Total Coop Enrollment: 3,103
Tot. Hndcpd. Voc. Ed. Enroll: 1,167 Tot. Work-Study Enroll: 207

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 2,803,814 Total Fed. Expenditures: $ 2,842,401
Total State/Local Expenditures: $ 6,113,983
Expenditures by Location: SMSA: $ 1,640,802 Urban $ 1,640,802
Rural: $ 7,315,579
Tot. Expenditures for Disadv: $ 2,991,843 Hndcpd: $ 616,987
Expenditures by Pgm: Agriculture: $ Distrib.Ed. $
Health: $ Cons.& Hmkg: $ 1,406,303 Occup.Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:
MDTA: 1,055
EOA: 2,919
Apprenticeship: 1,049

DoL Allocations in Occup. Reported Pgms:
MDTA $ 1,894,000
EOA $ 6,680,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst: 716 MAINSTREAM: 226 PSC: 32
MDTA OJT: 339 WIN: 507 NYC OS: 455
OIC: 1 NEW CAREERS: 0 CEP: 1,698

Statistical Profile of New York 1970-71

Population:

Total State: 18,241,266
15 - 19 yrs: 1,563,179
20 - 24 yrs: 1,382,376
25 - 65 yrs: 8,453,238

SMSA: 15,805,536
Urban: 15,602,486
Rural: 2,634,481

Negro: 2,168,949
Am.Indian: 28,355
Oriental: 101,729
White: 15,834,090
Other: 103,844

Total School Enrollment:
Elem (K-8): 2,431,463
Sec (9-12): 1,005,125
Post-Sec (13-14): 188,918
Adult: 542,265

Total Voc. Ed. Enrollment:
Sec: 445,606
Post-Sec: 58,965
Adult: 165,146
Total: 669,717

Voc. Ed. Enroll. by Race*:
Negro: 124,717
Spanish Surnamed Americans: 66,105
Am.Indian: NA
Oriental: NA
Other: 641,000
***Figures include** 162,105 **students under grade 9.** 'Other'includes Indian and Oriental.

Voc. Ed. Enroll. by Location:
SMSA: 685,511
Urban: 374,017
Rural: 146,321

Voc. Ed. Enroll. by Program:
Agriculture: 10,996
Distrib. Ed: 37,377
Health: 34,287
Cons.& Hmkg: 196,100
Occup. H.E.: 6,117
Office: 217,964
Technical: 40,954
Trade & Ind: 125,922

Occupationally Oriented Enrollments:
Gen Business: 184,607
Gen. Agriculture: 0
Industrial Arts: 278,324

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 991
Total No. of Voc. Ed. Programs: 667 [1]
Total No. Voc. Ed. Teachers: 19,428

Tot. Disadv. Voc. Ed. Enroll: 174,093
Tot. Hndcpd. Voc. Ed. Enroll: 5,807

Total Coop Enrollment: 17,882
Tot. Work-Study Enroll: 1,300

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 27,264,214 **Total Fed. Expenditures:** $ 30,051,848
Total State/Local Expenditures: $ 266,218,606
Expenditures by Location: SMSA: $ NA **Urban** $ 17,457,753 [2]
Rural: $ 5,820,900 [2]
Tot. Expenditures for Disadv: $ 47,632,565 **Hndcpd:** $ 9,662,632
Expenditures by Pgm: Agriculture: $ 1,114,248 [2] **Distrib.Ed.** $ 763,828 [2]
Health: $ 1,937,433[2] **Cons.& Hmkg:** $18,706,825 **Occup.Home Ec:** $ 1,565,187[2]
Office: $ 1,405,888[2] **Tech:** $ 1,538,889[2] **Trade & Ind:** $ 13,293,110[2]

Total Occup. Reported DoL Enrollments:
MDTA: 12,874
EOA: 19,909
Apprenticeship: 22,672

DoL Allocations in Occup. Reported Pgms:
MDTA $ 35,573,000
EOA $ 35,547,000 *
***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst:	8,781	**MAINSTREAM:**	329	**PSC:**	173
MDTA OJT:	4,093	**WIN:**	12,198	**NYC OS:**	3,270
OIC:	13	**NEW CAREERS:**	0	**CEP:**	3,926

[1] 667 Post-secondary programs, but number of sec. and adult programs not available.
[2] Just Federal expenditures, state/local expenditures not available.

Statistical Profile of North Carolina 1970-71

Population:

Total State: 5,082,059
15 - 19 yrs: 519,514
20 - 24 yrs: 464,072
25 - 65 yrs: 2,231,690

SMSA: 1,896,423
Urban: 2,285,168
Rural: 2,796,891

Negro: 1,126,478
Am.Indian: 44,406
Oriental: 3,359
White: 3,901,767
Other: 6,049

Total School Enrollment:

Elem (K-8): 859,949
Sec (9-12): 357,075
Post-Sec (13-14): 358,014
Adult: ____

Total Voc. Ed. Enrollment:

Sec: 161,697
Post-Sec: 42,536
Adult: 172,584
Total: 376,817

Voc. Ed. Enroll. by Race*:

Negro: 128,470
Spanish Surnamed Americans: 75
Am.Indian: 4,427
Oriental: 190
Other: 282,687
*Figures include 39,032 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 125,293
Urban: 0
Rural: 290,556

Voc. Ed. Enroll. by Program:

Agriculture: 31,061
Distrib. Ed: 16,661
Health: 20,563
Cons & Hmkg: 107,685
Occup. H.E.: 14,990
Office: 30,795
Technical: 10,514
Trade & Ind: 122,725

Occupationally Oriented Enrollments:

Gen Business: 100,042
Gen. Agriculture: 0
Industrial Arts: 20,186

Career Education Enrollment: ____
Total No. Schools Offering Voc. Ed: ____
Total No. of Voc. Ed. Programs: ____
Total No. Voc. Ed. Teachers: 10,757

Tot. Disadv. Voc. Ed. Enroll: 47,240
Tot. Hndcpd. Voc. Ed. Enroll: 8,635

Total Coop Enrollment: 24,312
Tot. Work-Study Enroll: 888

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $13,363,830
Total Fed. Expenditures: $12,742,870
Total State/Local Expenditures: $ 69,779,483
Expenditures by Location: SMSA: $ 22,790,326 Urban $16,378,946
Rural: $ 59,732,027
Tot. Expenditures for Disadv: $ 3,628,837 Hndcpd: $1,357,382
Expenditures by Pgm: Agriculture: $____ Distrib.Ed. $____
Health: $____ Cons.& Hmkg: $1,871,116 Occup.Home Ec: $____
Office: $____ Tech: $____ Trade & Ind: $____

Total Occup. Reported DoL Enrollments:

MDTA: 4,345
EOA: 4,511
Apprenticeship: 7,632

DoL Allocations in Occup. Reported Pgms:

MDTA $ 5,302,000
EOA $12,189,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 3,422
MDTA OJT: 923
OIC: 0

MAINSTREAM: 168
WIN: 561
NEW CAREERS: 64

PSC: 5
NYC OS: 1,400
CEP: 2,313

Statistical Profile of North Dakota **1970-71**

Population:

Total State:	617,761	**SMSA:**	120,238	**Negro:**	2,494
15 - 19 yrs:	70,334	**Urban:**	273,442	**Am.Indian:**	14,369
20 - 24 yrs:	64,769	**Rural:**	344,319	**Oriental:**	404
25 - 65 yrs:	300,732			**White:**	599,485
				Other:	1,009

Total School Enrollment:		**Total Voc. Ed. Enrollment:**	
Elem (K-8):	112,809	**Sec:**	16,470
Sec (9-12):	50,265	**Post-Sec:**	4,117
Post-Sec (13-14):	24,280	**Adult:**	5,628
Adult:	NA	**Total:**	26,215

Voc. Ed. Enroll. by Race*:		**Voc. Ed. Enroll. by Location:**	
Negro:	48	**SMSA:**	3,413
Spanish Surnamed Americans:	59	**Urban:**	0
Am.Indian:	412	**Rural:**	22,802
Oriental:	15		
Other:	25,681		

***Figures include** 0 **students under grade 9.**

Voc. Ed. Enroll. by Program:		**Occupationally Oriented Enrollments:**	
Agriculture:	4,987	**Gen Business:**	7,488
Distrib. Ed:	940	**Gen. Agriculture:**	0
Health:	958	**Industrial Arts:**	6,741
Cons.& Hmkg:	10,146		
Occup. H.E.:	453	**Career Education Enrollment:**	1,180
Office:	4,298	**Total No. Schools Offering Voc. Ed:**	138
Technical:	602	**Total No. of Voc. Ed. Programs:**	215
Trade & Ind:	3,592	**Total No. Voc. Ed. Teachers:**	783

Tot. Disadv. Voc. Ed. Enroll:	5,377	**Total Coop Enrollment:**	1,754
Tot. Hndcpd. Voc. Ed. Enroll:	774	**Tot. Work-Study Enroll:**	65

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $1,851,097 **Total Fed. Expenditures:**$ 1,813,348

Total State/Local Expenditures: $3,884,195

Expenditures by Location: SMSA:$ 545,497 **Urban** $ 486,498

Rural:$ 4,665,548

Tot. Expenditures for Disadv: $ 679,075 **Hndcpd:** $ 206,474

Expenditures by Pgm: Agriculture: $ NA **Distrib.Ed.** $ NA

Health: $ NA **Cons.& Hmkg:** $ 860,386 **Occup.Home Ec:** $ NA

Office: $ NA **Tech:** $ NA **Trade & Ind:** $ NA

Total Occup. Reported DoL Enrollments:		**DoL Allocations in Occup. Reported Pgms:**	
MDTA:	590	**MDTA**	$1,243,000
EOA:	646	**EOA**	$1,236,000 *
Apprenticeship:	613		

***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst:	449	**MAINSTREAM:**	148	**PSC:**	0
MDTA OJT:	141	**WIN:**	376	**NYC OS:**	107
OIC:	15	**NEW CAREERS:**	0	**CEP:**	0

Statistical Profile of Ohio **1970-71**

Population:

Total State:	10,652,017	**SMSA:**	9,039,278	**Negro:**	970,477
15 - 19 yrs:	1,012,221	**Urban:**	8,025,775	**Am.Indian:**	6,654
20 - 24 yrs:	833,369	**Rural:**	2,626,242	**Oriental:**	10,860
25 - 65 yrs:	4,701,044			**White:**	9,646,997
				Other:	17,029

Total School Enrollment:
Elem (K-8): 3,988,322
Sec (9-12): 671,130
Post-Sec (13-14): NA
Adult: NA

Total Voc. Ed. Enrollment:
Sec: 181,937
Post-Sec: 13,911
Adult: 193,196
Total: 389,044

Voc. Ed. Enroll. by Race*:
Negro: 107,882
Spanish Surnamed Americans: 6,592
Am.Indian: 845
Oriental: 695
Other: 300,963
***Figures include** 27,933 **students under grade 9.**

Voc. Ed. Enroll. by Location:
SMSA: 295,847
Urban: 145,129
Rural: 121,130

Voc. Ed. Enroll. by Program:
Agriculture: 29,674
Distrib. Ed: 39,120
Health: 8,582
Cons.& Hmkg: 136,173
Occup. H.E.: 4,368
Office: 41,386
Technical: 5,720
Trade & Ind: 93,992

Occupationally Oriented Enrollments:
Gen Business: ____
Gen. Agriculture: ____
Industrial Arts: ____

Career Education Enrollment: 23,502
Total No. Schools Offering Voc. Ed: 796
Total No. of Voc. Ed. Programs: NA
Total No. Voc. Ed. Teachers: 11,184*
*includes duplication of 86 teachers

Tot. Disadv. Voc. Ed. Enroll: 80,818
Tot. Hndcpd. Voc. Ed. Enroll: 11,706
Total Coop Enrollment: 33,829
Tot. Work-Study Enroll: 901

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $** 20,353,095 **Total Fed. Expenditures:$20,865,391
Total State/Local Expenditures: $163,691,703
Expenditures by Location: SMSA:$ 86,936,307 **Urban $**40,615,173
Rural:$57,005,614
Tot. Expenditures for Disadv: $ 7,668,356 **Hndcpd: $**2,433,067
Expenditures by Pgm: Agriculture: $ NA **Distrib.Ed. $** NA
Health: $ NA **Cons.& Hmkg: $**14,400,174 **Occup.Home Ec: $** NA
Office: $ NA **Tech: $** NA **Trade & Ind: $** NA

Total Occup. Reported DoL Enrollments:
MDTA: 7,204
EOA: 10,636
Apprenticeship: 18,561

DoL Allocations in Occup. Reported Pgms:
MDTA $12,091,000
EOA $19,338,000 *****
***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst:	4,943	**MAINSTREAM:**	600	**PSC:**	58
MDTA OJT:	2,261	**WIN:**	4,639	**NYC OS:**	1,676
OIC:	1,131	**NEW CAREERS:**	1	**CEP:**	2,531

Statistical Profile of Oklahoma 1970-71

Population:

Total State: 2,559,229
15 - 19 yrs: 241,535
20 - 24 yrs: 207,450
25 - 65 yrs: 1,121,977

SMSA: 1,386,399
Urban: 1,740,137
Rural: 819,092

Negro: 171,892
Am. Indian: 98,468
Oriental: 2,407
White: 2,280,362
Other: 6,100

Total School Enrollment:

Elem (K-8): 456,347
Sec (9-12): 188,506
Post-Sec (13-14): 64,117
Adult: 105,403

Total Voc. Ed. Enrollment:

Sec: 60,856
Post-Sec: 5,322
Adult: 38,045
Total: 104,223

Voc. Ed. Enroll. by Race*:

Negro: 6,569
Spanish Surnamed Americans: 593
Am. Indian: 5,312
Oriental: 87
Other: 91,662
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 39,750
Urban: 28,809
Rural: 54,093

Voc. Ed. Enroll. by Program:

Agriculture: 23,845
Distrib. Ed: 5,040
Health: 2,958
Cons. & Hmkg: 34,074
Occup. H.E.: 2,714
Office: 8,972
Technical: 7,850
Trade & Ind: 22,654

Occupationally Oriented Enrollments:

Gen Business: 80,469
Gen. Agriculture: 511
Industrial Arts: 44,212

Career Education Enrollment: 1,754
Total No. Schools Offering Voc. Ed: 470
Total No. of Voc. Ed. Programs: 2,733
Total No. Voc. Ed. Teachers: 1,930

Tot. Disadv. Voc. Ed. Enroll: 25,117
Tot. Hndcpd. Voc. Ed. Enroll: 4,107

Total Coop Enrollment: 8,332
Tot. Work-Study Enroll: 487

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $6,124,559 Total Fed. Expenditures: $5,788,819
Total State/Local Expenditures: $21,780,038
Expenditures by Location: SMSA: $7,715,724 Urban $4,464,796
Rural: $19,552,133
Tot. Expenditures for Disadv: $ 6,282,579 Hndcpd: $601,214
Expenditures by Pgm: Agriculture: $6,231,061 Distrib. Ed. $1,174,736
Health: $1,135,926 Cons. & Hmkg: $ 3,053,656 Occup. Home Ec: $727,291
Office: $2,054,442 Tech: $ 2,676,230 Trade & Ind: $4,069,834

Total Occup. Reported DoL Enrollments:

MDTA: 3,432
EOA: 4,480
Apprenticeship: 2,738

DoL Allocations in Occup. Reported Pgms:

MDTA $3,886,000
EOA $7,299,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,832
MDTA OJT: 600
OIC: 1,082

MAINSTREAM: 386
WIN: 461
NEW CAREERS: 0

PSC: 70
NYC OS: 1,272
CEP: 1,209

Statistical Profile of Oregon 1970-71

Population:

Total State:	2,091,385	SMSA:	1,409,145	Negro:	26,308
15 - 19 yrs:	229,632	Urban:	1,402,511	Am.Indian:	13,510
20 - 24 yrs:	162,638	Rural:	688,874	Oriental:	13,290
25 - 65 yrs:	928,897			White:	2,032,079
				Other:	6,198

Total School Enrollment:
Elem (K-8): 339,183
Sec (9-12): 159,286
Post-Sec (13-14): 117,297
Adult: NA

Total Voc. Ed. Enrollment:
Sec: 55,022
Post-Sec: 15,243
Adult: 30,825
Total: 101,090

Voc. Ed. Enroll. by Race*:
Negro: 1,855
Spanish Surnamed Americans: 781
Am.Indian: 1,137
Oriental: 739
Other: 107,312
*Figures include 10,734 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: 70,516
Urban: 59,921
Rural: 41,308

Voc. Ed. Enroll. by Program:
Agriculture: 4,193
Distrib. Ed: 5,685
Health: 2,872
Cons & Hmkg: 39,594
Occup. H.E.: 1,038
Office: 23,406
Technical: 4,522
Trade & Ind: 19,435

Occupationally Oriented Enrollments:
Gen Business: 38,485
Gen. Agriculture: 3,255
Industrial Arts: 29,479

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 159
Total No. of Voc. Ed. Programs: 980
Total No. Voc. Ed. Teachers: 3,372

Tot. Disadv. Voc. Ed. Enroll: 19,610
Tot. Hndcpd. Voc. Ed. Enroll: 1,265
Total Coop Enrollment: 5,638
Tot. Work-Study Enroll: 204

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $4,350,435 Total Fed. Expenditures: $4,230,039
Total State/Local Expenditures: $18,698,964
Expenditures by Location: SMSA: $ 11,404,858 Urban $ 3,234,425
Rural: $ 11,524,145
Tot. Expenditures for Disadv: $ 1,553,176 Hndcpd: $ 1,086,906
Expenditures by Pgm. Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ 276,941 Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:
MDTA: 1,682
EOA: 4,341
Apprenticeship: 3,266

DoL Allocations in Occup. Reported Pgms:
MDTA $ 3,415,000
EOA $ 4,568,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst:	1,459	MAINSTREAM:	54	PSC:	40
MDTA OJT:	223	WIN:	2,442	NYC OS:	1,392
OIC:	3	NEW CAREERS:	0	CEP:	410

Statistical Profile of Pennsylvania 1970-71

Population:

Total State: 11,793,909
15 - 19 yrs: 1,168,554
20 - 24 yrs: 1,075,420
25 - 65 yrs: 6,268,857

SMSA: 10,659,873
Urban: 8,430,410
Rural: 3,363,499

Negro: 1,016,514
Am.Indian: 5,533
Oriental: 12,514
White: 10,737,732
Other: 21,616

Total School Enrollment:

Elem (K-8): 1,264,247
Sec (9-12): 708,848
Post-Sec (13-14): 41,455
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 184,619
Post-Sec: 27,381
Adult: 125,835
Total: 337,835

Voc. Ed. Enroll. by Race*:

Negro: 37,201
Spanish Surnamed Americans: 0
Am.Indian: 0
Oriental: 0
Other: 300,634
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 178,020
Urban: 94,152
Rural: 159,815

Voc. Ed. Enroll. by Program:

Agriculture: 14,352
Distrib. Ed: 11,454
Health: 9,723
Cons.& Hmkg: 52,288
Occup. H.E.: 7,949
Office: 101,994
Technical: 18,183
Trade & Ind: 76,417

Occupationally Oriented Enrollments:

Gen Business: 196,056
Gen. Agriculture: 2,460
Industrial Arts: 209,532

Career Education Enrollment: NA
Total No. Schools Offering Voc. Ed: 884
Total No. of Voc. Ed. Programs: 4,928
Total No. Voc. Ed. Teachers: 11,327

Tot. Disadv. Voc. Ed. Enroll: 25,984
Tot. Hndcpd. Voc. Ed. Enroll: 4,597

Total Coop Enrollment: 7,524
Tot. Work-Study Enroll: 1,029

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $22,343,658
Total Fed. Expenditures: $19,459,164
Total State/Local Expenditures: $132,594,287
Expenditures by Location: SMSA: $109,051,033 Urban $70,809,508
Rural: $43,002,418
Tot. Expenditures for Disadv: $11,292,124 Hndcpd: $3,228,985
Expenditures by Pgm: Agriculture: $ NA Distrib.Ed. $ NA
Health: $ NA Cons.& Hmkg: $ NA Occup.Home Ec: $ NA
Office: $ NA Tech: $ NA Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 8,940
EOA: 20,670
Apprenticeship: 12,241

DoL Allocations in Occup. Reported Pgms:

MDTA $15,398,000
EOA $18,382,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 7,773
MDTA OJT: 1,167
OIC: 4,591

MAINSTREAM: 190
WIN: 7,691
NEW CAREERS: 51

PSC: 3
NYC OS: 2,056
CEP: 6,088

Statistical Profile of Rhode Island 1970-71

Population:

Total State: 946,725
15 - 19 yrs: 85,680
20 - 24 yrs: 87,963
25 - 65 yrs: 418,952

SMSA: 789,186
Urban: 824,930
Rural: 121,795

Negro: 25,338
Am.Indian: 1,390
Oriental: 1,722
White: 914,757
Other: 3,518

Total School Enrollment:

Elem (K-8): 142,251
Sec (9-12): 53,335
Post-Sec (13-14): NA
Adult: 6,811

Total Voc. Ed. Enrollment:

Sec: 12,026
Post-Sec: 1,081
Adult: 5,263
Total: 18,370

Voc. Ed. Enroll. by Race*:

Negro: 561
Spanish Surnamed Americans: 198
Am.Indian: 0
Oriental: 36
Other: 17,575
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 17,453
Urban: 11,613
Rural: 917

Voc. Ed. Enroll. by Program:

Agriculture: 1,160
Distrib. Ed: 859
Health: 950
Cons.& Hmkg: 8,500
Occup. H.E.: 36
Office: 749
Technical: 700
Trade & Ind: 5,058

Occupationally Oriented Enrollments:

Gen Business: 6,500
Gen. Agriculture: 1,149
Industrial Arts: 13,167

Career Education Enrollment: 0
Total No. Schools Offering Voc. Ed: 30
Total No. of Voc. Ed. Programs: 305
Total No. Voc. Ed. Teachers: 497

Tot. Disadv. Voc. Ed. Enroll: 2,593
Tot. Hndcpd. Voc. Ed. Enroll: 383
Total Coop Enrollment: 859
Tot. Work-Study Enroll: 224

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $1,970,695
Total Fed. Expenditures: $1,259,061
Total State/Local Expenditures: $5,140,315
Expenditures by Location: SMSA: $5,502,640 Urban $4,085,747
Rural: $896,736
Tot. Expenditures for Disadv: $968,430 Hndcpd: $172,830
Expenditures by Pgm: Agriculture: $NA Distrib.Ed. $NA
Health: $NA Cons.& Hmkg: $285,285 Occup.Home Ec: $NA
Office: $NA Tech: $NA Trade & Ind: $NA

Total Occup. Reported DoL Enrollments:

MDTA: 1,065
EOA: 1,654
Apprenticeship: 1,170

DoL Allocations in Occup. Reported Pgms:

MDTA $1,688,000
EOA $1,644,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 1,026
MDTA OJT: 39
OIC: 12

MAINSTREAM: 0
WIN: 986
NEW CAREERS: 0

PSC: 19
NYC OS: 73
CEP: 564

Statistical Profile of South Carolina 1970-71

Population:

Total State: 2,590,516
15 - 19 yrs: 282,703
20 - 24 yrs: 280,881
25 - 65 yrs: 1,330,966

SMSA: 1,179,691
Urban: 1,232,195
Rural: 1,358,321

Negro: 789,041
Am.Indian: 2,241
Oriental: 1,347
White: 1,794,430
Other: 3,457

Total School Enrollment:

Elem (K-8): 473,912
Sec (9-12): 182,425
Post-Sec (13-14): 19,782
Adult: 100,717

Total Voc. Ed. Enrollment:

Sec: 70,655
Post-Sec: 3,200
Adult: 19,761
Total: 93,616

Voc. Ed. Enroll. by Race*:

Negro: 50,736
Spanish Surnamed Americans: 0
Am.Indian: 47
Oriental: 0
Other: 51,715

*Figures include 8,756 students under grade 9. 216 students shown in total enrollment by race, now shown in total vocational ed. enrollment.

Voc. Ed. Enroll. by Location:

SMSA: 28,279
Urban: 0
Rural: 74,219

Voc. Ed. Enroll. by Program:

Agriculture: 22,891
Distrib. Ed: 3,983
Health: 1,440
Cons.& Hmkg: 29,606
Occup. H.E.: 1,353
Office: 11,058
Technical: 1,195
Trade & Ind: 18,646

Occupationally Oriented Enrollments:

Gen Business: 23,722
Gen. Agriculture: 0
Industrial Arts: 11,227

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 227
Total No. of Voc. Ed. Programs: 252
Total No. Voc. Ed. Teachers: 2,224

Tot. Disadv. Voc. Ed. Enroll: 19,314
Tot. Hndcpd. Voc. Ed. Enroll: 3,456

Total Coop Enrollment: 2,809
Tot. Work-Study Enroll: 323

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 7,460,221 Total Fed. Expenditures: $ 7,188,102
Total State/Local Expenditures: $ 13,953,234
Expenditures by Location: SMSA: $ 4,328,686 Urban $ 0
Rural: $ 16,812,650
Tot. Expenditures for Disadv: $ Hndcpd: $
Expenditures by Pgm: Agriculture: $ 2,008,225 Distrib.Ed. $ 618,150
Health: $ 396,450 Cons.& Hmkg: $ Occup.Home Ec: $ 236,603
Office: $ 2,627,341 Tech: $ Trade & Ind: $ 3,512,822

Total Occup. Reported DoL Enrollments:

MDTA: 2,572
EOA: 2,335
Apprenticeship: 1,862

DoL Allocations in Occup. Reported Pgms:

MDTA $ 3,606,000
EOA $ 7,695,000 *

*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 1,714
MDTA OJT: 858
OIC: 11

MAINSTREAM: 163
WIN: 367
NEW CAREERS: 531

PSC: 60
NYC OS: 728
CEP: 975

Statistical Profile of South Dakota 1970-71

Population:

Total State:	665,507	SMSA:	95,209	Negro:	1,627
15 - 19 yrs:	69,989	Urban:	296,628	Am.Indian:	32,365
20 - 24 yrs:	48,646	Rural:	368,879	Oriental:	384
25 - 65 yrs:	268,990			White:	630,333
				Other:	798

Total School Enrollment:		**Total Voc. Ed. Enrollment:**	
Elem (K-8):	111,339	Sec:	14,331
Sec (9-12):	52,117	Post-Sec:	1,806
Post-Sec (13-14):		Adult:	5,276
Adult:		Total:	21,413

Voc. Ed. Enroll. by Race*:		**Voc. Ed. Enroll. by Location:**	
Negro:	13	SMSA:	1,524
Spanish Surnamed Americans:	20	Urban:	1,524
Am.Indian:	439	Rural:	23,849
Oriental:	9		
Other:	24,892		

*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Program:		**Occupationally Oriented Enrollments:**	
Agriculture:	4,652	Gen Business:	
Distrib. Ed.:	1,073	Gen. Agriculture:	
Health:	372	Industrial Arts:	
Cons & Hmkg:	9,000		
Occup. H.E.:	892	Career Education Enrollment:	
Office:	1,734	Total No. Schools Offering Voc. Ed:	125
Technical:	659	Total No. of Voc. Ed. Programs:	613
Trade & Ind:	3,017	Total No. Voc. Ed. Teachers:	628

Tot. Disadv. Voc. Ed. Enroll:	3,751	Total Coop Enrollment:	1,127
Tot. Hndcpd. Voc. Ed. Enroll:	916	Tot. Work-Study Enroll:	131

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $1,879,796 Total Fed. Expenditures:$ 1,802,130

Total State/Local Expenditures: $ 2,852,154

Expenditures by Location: SMSA:$ 525,756 Urban $ 525,756

Rural:$ 4,128,528

Tot. Expenditures for Disadv: $ 1,709,321 Hndcpd: $ 196,463

Expenditures by Pgm: Agriculture: $ Distrib.Ed. $

Health: $ Cons.& Hmkg: $ 821,700 Occup.Home Ec: $

Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:		**DoL Allocations in Occup. Reported Pgms:**	
MDTA:	505	MDTA	$ 1,316,000
EOA:	1,072	EOA	$ 2,018,000 *
Apprenticeship:	492		

*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst:	350	MAINSTREAM:	223	PSC:	71
MDTA OJT:	155	WIN:	603	NYC OS:	167
OIC:	3	NEW CAREERS:	0	CEP:	5

Statistical Profile of Tennessee **1970-71**

Population:

Total State: 3,923,687
15 - 19 yrs: 377,954
20 - 24 yrs: 321,177
25 - 65 yrs: 1,713,850

SMSA: 2,016,492
Urban: 2,305,307
Rural: 1,618,380

Negro: 621,261
Am.Indian: 2,276
Oriental: 2,770
White: 3,293,930
Other: 3,450

Total School Enrollment:

Elem (K-8): 659,962
Sec (9-12): 262,258
Post-Sec (13-14): NA
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 95,472
Post-Sec: 16,346
Adult: 31,754
Total: 143,572

Voc. Ed. Enroll. by Race*:

Negro: 34,709
Spanish Surnamed Americans: 91
Am.Indian: 203
Oriental: 66
Other: 108,503

Voc. Ed. Enroll. by Location:

SMSA: 49,310
Urban: 44,477
Rural: 94,262

***Figures include** 0 **students under grade 9.**

Voc. Ed. Enroll. by Program:

Agriculture: 22,342
Distrib. Ed: 10,011
Health: 3,931
Cons.& Hmkg: 47,979
Occup. H.E.: 1,941
Office: 16,166
Technical: 3,640
Trade & Ind: 38,197

Occupationally Oriented Enrollments:

Gen Business: 0
Gen. Agriculture: 0
Industrial Arts: 87,325

Career Education Enrollment: 5,280
Total No. Schools Offering Voc. Ed: 372
Total No. of Voc. Ed. Programs: 1,526
Total No. Voc. Ed. Teachers: 3,521

Tot. Disadv. Voc. Ed. Enroll: 13,523
Tot. Hndcpd. Voc. Ed. Enroll: 1,197
Total Coop Enrollment: 6,406
Tot. Work-Study Enroll: 1,398

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $9,785,046 **Total Fed. Expenditures:**$ 8,498,056
Total State/Local Expenditures: $23,429,245
Expenditures by Location: SMSA:$ 13,486,450 **Urban** $11,802,947
Rural:$ 18,440,851
Tot. Expenditures for Disadv: $ 3,302,279 **Hndcpd:** $ 742,731
Expenditures by Pgm: Agriculture: $ NA **Distrib.Ed.** $ NA
Health: $ NA **Cons.& Hmkg:** $4,049,554 **Occup.Home Ec:** $ NA
Office: $ NA **Tech:** $ NA **Trade & Ind:** $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 3,611
EOA: 4,366
Apprenticeship: 5,189

DoL Allocations in Occup. Reported Pgms:

MDTA $ 5,159,000
EOA $10,955,000 *
***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,492
MDTA OJT: 1,119
OIC: 3
MAINSTREAM: 649
WIN: 598
NEW CAREERS: 37
PSC: 65
NYC OS: 1,168
CEP: 1,846

Statistical Profile of Texas 1970-71

Population:

Total State: 11,196,730
15 - 19 yrs: 1,092,752
20 - 24 yrs: 958,507
25 - 65 yrs: 4,824,944

SMSA: 8,209,865
Urban: 8,920,946
Rural: 2,275,784

Negro: 1,399,005
Am. Indian: 17,957
Oriental: 14,172
White: 9,717,128
Other: 48,468

Total School Enrollment:
Elem (K-8): 1,950,506
Sec (9-12): 785,825
Post-Sec (13-14): 123,127
Adult: 238,656

Total Voc. Ed. Enrollment:
Sec: 306,570
Post-Sec: 41,912
Adult: 229,213
Total: 577,695

Voc. Ed. Enroll. by Race*:
Negro: 92,376
Spanish Surnamed Americans: 129,377
Am. Indian: 606
Oriental: 1,204
Other: 383,844

Voc. Ed. Enroll. by Location:
SMSA: 461,789
Urban: 160,122
Rural: 88,106

***Figures include** 35,660 **students under grade 9.** 5,948 students shown in total vocational ed. enrollment, not shown in enrollment by race.

Voc. Ed. Enroll. by Program:
Agriculture: 146,988
Distrib. Ed: 39,707
Health: 14,721
Cons & Hmkg: 229,357
Occup. H.E.: 10,361
Office: 42,112
Technical: 7,846
Trade & Ind: 86,603

Occupationally Oriented Enrollments:
Gen Business: 20,411
Gen. Agriculture: 0
Industrial Arts: 176,456

Career Education Enrollment: 16,074
Total No. Schools Offering Voc. Ed: 975
Total No. of Voc. Ed. Programs: 9,979
Total No. Voc. Ed. Teachers: 12,252

Tot. Disadv. Voc. Ed. Enroll: 56,790
Tot. Hndcpd. Voc. Ed. Enroll: 3,543
Total Coop Enrollment: 34,255
Tot. Work-Study Enroll: 468

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 25,548,424
Total Fed. Expenditures: $ 20,980,590
Total State/Local Expenditures: $ 85,464,881
Expenditures by Location: SMSA: $ 58,285,206
Urban $ NA
Rural: $ 28,481,051
Tot. Expenditures for Disadv: $ 7,703,343
Hndcpd: $ 2,572,924
Expenditures by Pgm: Agriculture: $ NA
Distrib.Ed. $ NA
Health: $ NA
Cons.& Hmkg: $ 22,195,706
Occup.Home Ec: $ NA
Office: $ NA
Tech: $ NA
Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:
MDTA: 11,101
EOA: 13,901
Apprenticeship: 10,455

DoL Allocations in Occup. Reported Pgms:
MDTA $ 15,175,000
EOA $ 23,837,000*
***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:
MDTA Inst: 8,852
MDTA OJT: 2,249
OIC: 1,313
MAINSTREAM: 737
WIN: 2,233
NEW CAREERS: 14
PSC: 154
NYC OS: 2,795
CEP: 6,655

Statistical Profile of Utah 1970-71

Population:

Total State: 1,059,273
15 - 19 yrs: 116,607
20 - 24 yrs: 97,859
25 - 65 yrs: 413,697

SMSA: 821,689
Urban: 851,472
Rural: 207,801

Negro: 6,617
Am.Indian: 11,273
Oriental: 5,994
White: 1,031,926
Other: 3,463

Total School Enrollment:

Elem (K-8): 217,907
Sec (9-12): 90,839
Post-Sec (13-14): 21,793
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 65,131
Post-Sec: 12,294
Adult: 17,558
Total: 94,983

Voc. Ed. Enroll. by Race*:

Negro: 2,476
Spanish Surnamed Americans: 7,294
Am.Indian: 2,600
Oriental: 951
Other: 95,478
*Figures include 13,816 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 25,655
Urban: 25,509
Rural: 57,750

Voc. Ed. Enroll. by Program:

Agriculture: 6,913
Distrib. Ed: 6,544
Health: 1,830
Cons & Hmkg: 24,834
Occup. H.E.: 1,965
Office: 27,174
Technical: 644
Trade & Ind: 17,853

Occupationally Oriented Enrollments:

Gen Business: 0
Gen. Agriculture: 0
Industrial Arts: 20,572

Career Education Enrollment: 4,807
Total No. Schools Offering Voc. Ed: 97
Total No. of Voc. Ed. Programs: 3,088
Total No. Voc. Ed. Teachers: 2,409

Tot. Disadv. Voc. Ed. Enroll: 9,874
Tot. Hndcpd. Voc. Ed. Enroll: 2,258

Total Coop Enrollment: 1,554
Tot. Work-Study Enroll: 305

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $2,777,805
Total Fed. Expenditures: $2,601,601
Total State/Local Expenditures: $13,908,121
Expenditures by Location: SMSA: $11,701,143 Urban $8,010,839 Rural: $4,839,579
Tot. Expenditures for Disadv: $956,738 Hndcpd: $545,192
Expenditures by Pgm: Agriculture: $719,553 Distrib.Ed. $346,219
Health: $534,318 Cons.& Hmkg: $1,469,332 Occup.Home Ec: $1,469,332
Office: $1,877,646 Tech: $67,913 Trade & Ind: $4,767,621

Total Occup. Reported DoL Enrollments:

MDTA: 1,469
EOA: 2,023
Apprenticeship: 1,851

DoL Allocations in Occup. Reported Pgms:

MDTA $2,555,000
EOA $1,874,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 1,071
MDTA OJT: 398
OIC: 3

MAINSTREAM: 56
WIN: 1,700
NEW CAREERS: 0

PSC: 37
NYC OS: 227
CEP: 0

Statistical Profile of Vermont 1970-71

Population:

Total State:	444,330	SMSA:	0	Negro:	761
15 - 19 yrs:	44,397	Urban:	142,889	Am.Indian:	229
20 - 24 yrs:	36,009	Rural:	301,441	Oriental:	307
25 - 65 yrs:	185,221			White:	442, 553
				Other:	480

Total School Enrollment:

Elem (K-8): 75,699
Sec (9-12): 27,517
Post-Sec (13-14): 2,470
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 9,601
Post-Sec: 173 [1]
Adult: 2,819
Total: 12,593

Voc. Ed. Enroll. by Race*:

Negro: 12
Spanish Surnamed Americans: 6
Am.Indian: 7
Oriental: 5
Other: 13,411
*Figures include 848 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 0
Rural: 13,441

Voc. Ed. Enroll. by Program:

Agriculture: 1,304
Distrib. Ed: 519
Health: 249
Cons & Hmkg: 4,579
Occup. H.E.: 176
Office: 1,226
Technical: 352
Trade & Ind: 3,590

Occupationally Oriented Enrollments:

Gen Business: NA
Gen. Agriculture: 0
Industrial Arts: NA

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 35
Total No. of Voc. Ed. Programs: 468
Total No. Voc. Ed. Teachers: 563

Tot. Disadv. Voc. Ed. Enroll: 2,800
Tot. Hndcpd. Voc. Ed. Enroll: 167
Total Coop Enrollment: 504
Tot. Work-Study Enroll: 104

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 1,223,832
Total Fed. Expenditures: $ 1,296,394
Total State/Local Expenditures: $ 9,670,368
Expenditures by Location: SMSA: $ 0 Urban $ 0
Rural: $ 10,966,762
Tot. Expenditures for Disadv: $ 898,125 Hndcpd: $ 71,261
Expenditures by Pgm. Agriculture: $ Distrib.Ed. $
Health: $ Cons.& Hmkg: $ 755,169 Occup.Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:

MDTA: 637
EOA: 999
Apprenticeship: 1,001

DoL Allocations in Occup. Reported Pgms:

MDTA $ 1,248,000
EOA $ 1,207,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst:	543	MAINSTREAM:	60	PSC:	65
MDTA OJT:	94	WIN:	701	NYC OS:	141
OIC:	11	NEW CAREERS:	20	CEP:	1

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[1] This figure includes only those programs administered by the Vermont State Department of Education.

Statistical Profile of Virginia 1970-71

Population:

Total State: 4,648,494
15 - 19 yrs: 440,872
20 - 24 yrs: 439,818
25 - 65 yrs: 2,078,450

SMSA: 2,846,034
Urban: 2,934,941
Rural: 1,713,653

Negro: 861,368
Am.Indian: 4,853
Oriental: 6,305
White: 3,761,514
Other: 14,454

Total School Enrollment:

Elem (K-8): 708,619
Sec (9-12): 404,509
Post-Sec (13-14): 43,375
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 129,770
Post-Sec: 15,833
Adult: 97,397
Total: 243,000

Voc. Ed. Enroll. by Race*:

Negro: 62,429
Spanish Surnamed Americans: 122
Am.Indian: 78
Oriental: 93
Other: 239,182
*Figures include 58,904 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 162,193
Urban: 59,216
Rural: 139,711

Voc. Ed. Enroll. by Program:

Agriculture: 20,604
Distrib. Ed: 43,580
Health: 3,961
Cons.& Hmkg: 44,734
Occup. H.E.: 1,285
Office: 60,057
Technical: 4,183
Trade & Ind: 61,339

Occupationally Oriented Enrollments:

Gen Business: 3,366
Gen. Agriculture: 0
Industrial Arts: 44,915

Career Education Enrollment: ____
Total No. Schools Offering Voc. Ed: 575
Total No. of Voc. Ed. Programs: ____
Total No. Voc. Ed. Teachers: 6,780

Tot. Disadv. Voc. Ed. Enroll: 44,733
Tot. Hndcpd. Voc. Ed. Enroll: 3,400

Total Coop Enrollment: 14,896
Tot. Work-Study Enroll: 605

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $10,959,392
Total Fed. Expenditures: $9,842,320
Total State/Local Expenditures: $ 29,609,622
Expenditures by Location: SMSA: $ 15,998,720 Urban $ 5,688,616
Rural: $ 20,453,222
Tot. Expenditures for Disadv: $ 7,943,559 Hndcpd: $ 848,715
Expenditures by Pgm: Agriculture: $____ Distrib.Ed. $____
Health: $____ Cons.& Hmkg: $6,372,883 Occup.Home Ec: $____
Office: $____ Tech: $____ Trade & Ind: $____

Total Occup. Reported DoL Enrollments:

MDTA: 3,450
EOA: 3,436
Apprenticeship: 6,141

DoL Allocations in Occup. Reported Pgms:

MDTA $ 6,027,000
EOA $ 7,623,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,630
MDTA OJT: 820
OIC: 513

MAINSTREAM: 85
WIN: 1,176
NEW CAREERS: 61

PSC: 0
NYC OS: 840
CEP: 761

Statistical Profile of Washington 1970-71

Population:

Total State: 3,409,169
15 - 19 yrs: 329,903
20 - 24 yrs: 295,964
25 - 65 yrs: 1,503,510

SMSA: 3,129,512
Urban: 2,476,468
Rural: 932,701

Negro: 71,308
Am.Indian: 33,386
Oriental: 29,536
White: 3,409,169
Other: 23,884

Total School Enrollment:

Elem (K-8): 572,881
Sec (9-12): 244,831
Post-Sec (13-14): 103,879
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 111,681
Post-Sec: 58,233
Adult: 56,204
Total: 226,118

Voc. Ed. Enroll. by Race*:

Negro: 5,704
Spanish Surnamed Americans: 3,599
Am.Indian: 3,155
Oriental: 3,594
Other: 219,880

Voc. Ed. Enroll. by Location:

SMSA: 124,019
Urban: 25,572
Rural: 111,913

***Figures include** 4,867 **students under grade 9.** 4,947 students shown in enrollment by race, not shown in total Voc.Ed. enrollment due to correction of OE form 3138.

Voc. Ed. Enroll. by Program:

Agriculture: 15,868
Distrib. Ed: 11,039
Health: 7,672
Cons.& Hmkg: 74,486
Occup. H.E.: 1,975
Office: 55,882
Technical: 10,608
Trade & Ind: 45,743

Occupationally Oriented Enrollments:

Gen Business:
Gen. Agriculture:
Industrial Arts:

Career Education Enrollment: 2,218
Total No. Schools Offering Voc. Ed: 349
Total No. of Voc. Ed. Programs:
Total No. Voc. Ed. Teachers: 7,018

Tot. Disadv. Voc. Ed. Enroll: 7,629
Tot. Hndcpd. Voc. Ed. Enroll: 3,284

Total Coop Enrollment: 6,370
Tot. Work-Study Enroll: 468

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 6,492,321
Total Fed. Expenditures: $7,222,056
Total State/Local Expenditures: $36,435,562
Expenditures by Location: SMSA: $ 7,089,353
Urban $3,727,221
Rural: $ 36,568,265
Tot. Expenditures for Disadv: $ 3,439,128
Hndcpd: $ 1,655,699
Expenditures by Pgm: Agriculture: $ NA
Distrib.Ed. $ NA
Health: $ NA
Cons.& Hmkg: $3,116,025
Occup.Home Ec: $ NA
Office: $ NA
Tech: $ NA
Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:

MDTA: 3,650
EOA: 6,533
Apprenticeship: 5,328

DoL Allocations in Occup. Reported Pgms:

MDTA $ 5,724,000
EOA $15,072,000 *

***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst: 2,747
MDTA OJT: 903
OIC: 650

MAINSTREAM: 170
WIN: 3,125
NEW CAREERS: 79

PSC: 187
NYC OS: 1,552
CEP: 770

Statistical Profile of West Virginia 1970-71

Population:
Total State: 1,744,237
15 - 19 yrs: 172,386
20 - 24 yrs: 128,653
25 - 65 yrs: 774,966
SMSA: 831,597
Urban: 679,491
Rural: 1,064,746
Negro: 67,342
Am.Indian: 751
Oriental: 741
White: 1,673,480
Other: 1,923

Total School Enrollment:
Elem (K-8): 290,087
Sec (9-12): 121,082
Post-Sec (13-14): NA
Adult: 33,295

Total Voc. Ed. Enrollment:
Sec: 33,161
Post-Sec: 2,014
Adult: 24,024
Total: 59,199

Voc. Ed. Enroll. by Race*:
Negro: NA
Spanish Surnamed Americans: NA
Am.Indian: NA
Oriental: NA
Other: NA
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:
SMSA: NA
Urban: NA
Rural: NA

Voc. Ed. Enroll. by Program:
Agriculture: 4,563
Distrib. Ed: 767
Health: 1,079
Cons.& Hmkg: 20,158
Occup. H.E.: 1,102
Office: 10,440
Technical: 2,491
Trade & Ind: 18,599

Occupationally Oriented Enrollments:
Gen Business: 3,248
Gen. Agriculture: 0
Industrial Arts: 7,994

Career Education Enrollment: 2,090
Total No. Schools Offering Voc. Ed: 199
Total No. of Voc. Ed. Programs: 1,321
Total No. Voc. Ed. Teachers: 1,721

Tot. Disadv. Voc. Ed. Enroll: 4,042
Tot. Hndcpd. Voc. Ed. Enroll: 812
Total Coop Enrollment: 885
Tot. Work-Study Enroll: 218

Voc. Ed. Funding/Expenditures:
Total Fed. Allocation: $ 4,849,459
Total Fed. Expenditures: $4,176,373
Total State/Local Expenditures: $ 7,173,499
Expenditures by Location: SMSA: $ 4,241,103
Urban $ 0
Rural: $ 7,108,769
Tot. Expenditures for Disadv: $ 1,345,189
Hndcpd: $ 306,094
Expenditures by Pgm: Agriculture: $ NA
Distrib.Ed. $ NA
Health: $ NA
Cons.& Hmkg: $1,369,789
Occup.Home Ec: $ NA
Office: $ NA
Tech: $ NA
Trade & Ind: $ NA

Total Occup. Reported DoL Enrollments:
MDTA: 1,849
EOA: 5,127
Apprenticeship: 1,434

DoL Allocations in Occup. Reported Pgms:
MDTA $ 5,094,000
EOA $ 7,400,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:
MDTA Inst: 1,105
MDTA OJT: 744
OIC: 414
MAINSTREAM: 0
WIN: 3,686
NEW CAREERS: 16
PSC: 95
NYC OS: 915
CEP: 1

Statistical Profile of Wisconsin 1970-71

Population:

Total State:	4,417,731	**SMSA:**	2,406,309	**Negro:**	128,224
15 - 19 yrs:	433,153	**Urban:**	2,910,418	**Am.Indian:**	18,924
20 - 24 yrs:	337,098	**Rural:**	1,507,313	**Oriental:**	5,348
25 - 65 yrs:	1,857,026			**White:**	4,258,959
				Other:	6,276

Total School Enrollment:

Elem (K-8): 672,130
Sec (9-12): 308,538
Post-Sec (13-14): 202,199
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 57,017
Post-Sec: 38,136
Adult: 92,484
Total: 187,637

Voc. Ed. Enroll. by Race*:

Negro: 460
Spanish Surnamed Americans: 15
Am.Indian: 100
Oriental: 15
Other: 187,047

***Figures include** 0 **students under grade 9.** Only secondary breakout was available.

Voc. Ed. Enroll. by Location:

SMSA: 95,796
Urban: 33,628
Rural: 97,338

Voc. Ed. Enroll. by Program:

Agriculture: 25,408
Distrib. Ed: 9,417
Health: 8,625
Cons.& Hmkg: 41,142
Occup. H.E.: 3,047
Office: 49,408
Technical: 7,193
Trade & Ind: 49,006

Occupationally Oriented Enrollments:

Gen Business:
Gen. Agriculture:
Industrial Arts:

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 359
Total No. of Voc. Ed. Programs: 2,731
Total No. Voc. Ed. Teachers:

Tot. Disadv. Voc. Ed. Enroll: 13,096
Tot. Hndcpd. Voc. Ed. Enroll: 2,145
Total Coop Enrollment: 2,814
Tot. Work-Study Enroll: 577

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 8,478,338
Total Fed. Expenditures: $ 8,341,753
Total State/Local Expenditures: $ 55,280,895
Expenditures by Location: SMSA: $ 34,841,924 **Urban** $ 34,465,256
Rural: $ 28,780,724
Tot. Expenditures for Disadv: $ 2,741,052 **Hndcpd:** $ 998,716
Expenditures by Pgm: Agriculture: $ **Distrib.Ed.** $
Health: $ **Cons.& Hmkg:** $ 1,844,088 **Occup.Home Ec:** $
Office: $ **Tech:** $ **Trade & Ind:** $

Total Occup. Reported DoL Enrollments:

MDTA: 3,580
EOA: 4,728
Apprenticeship: 8,322

DoL Allocations in Occup. Reported Pgms:

MDTA $ 6,497,000
EOA $ 7,204,000 *

***Allocations for OIC and New Careers were not available.**

MDTA and EOA Enrollments by Program:

MDTA Inst:	2,470	**MAINSTREAM:**	0	**PSC:**	49
MDTA OJT:	1,110	**WIN:**	1,977	**NYC OS:**	360
OIC:	516	**NEW CAREERS:**	0	**CEP:**	1,826

Statistical Profile of Wyoming 1970-71

Population:

Total State: 332,416
15 - 19 yrs: 33,229
20 - 24 yrs: 24,807
25 - 65 yrs: 145,382

SMSA: 0
Urban: 201,111
Rural: 131,305

Negro: 2,568
Am. Indian: 4,980
Oriental: 858
White: 323,024
Other: 986

Total School Enrollment:

Elem (K-8): 64,637
Sec (9-12): 27,494
Post-Sec (13-14): 5,926
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 11,851
Post-Sec: 1,436
Adult: 962
Total: 14,249

Voc. Ed. Enroll. by Race*:

Negro: 203
Spanish Surnamed Americans: 2,303
Am. Indian: 424
Oriental: 54
Other: 13,527
*Figures include 2,262 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 0
Rural: 16,531

Voc. Ed. Enroll. by Program:

Agriculture: 1,937
Distrib. Ed: 802
Health: 178
Cons. & Hmkg: 3,818
Occup. H.E.: 0
Office: 5,896
Technical: 220
Trade & Ind: 1,398

Occupationally Oriented Enrollments:

Gen Business: 2,948
Gen. Agriculture: 968
Industrial Arts: 2,800

Career Education Enrollment: 11,395
Total No. Schools Offering Voc. Ed: 53
Total No. of Voc. Ed. Programs: 213
Total No. Voc. Ed. Teachers: 632

Tot. Disadv. Voc. Ed. Enroll: 578
Tot. Hndcpd. Voc. Ed. Enroll: 282

Total Coop Enrollment: 1,066
Tot. Work-Study Enroll: 42

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $1,002,967
Total Fed. Expenditures: $ 980,917
Total State/Local Expenditures: $3,774,202
Expenditures by Location: SMSA: $ 0 Urban $ 0
Rural: $4,755,119
Tot. Expenditures for Disadv: $ 102,666 Hndcpd: $204,809
Expenditures by Pgm: Agriculture: $40,118 Distrib. Ed. $ 10,188
Health: $22,721 Cons. & Hmkg: $625,625 Occup. Home Ec: $ 66,272
Office: $ 30,895 Tech: $ 0 Trade & Ind: $ 52,971

Total Occup. Reported DoL Enrollments:

MDTA: 491
EOA: 332
Apprenticeship: 325

DoL Allocations in Occup. Reported Pgms:

MDTA $1,163,000
EOA $ 308,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: 345
MDTA OJT: 146
OIC: 0

MAINSTREAM: 17
WIN: 155
NEW CAREERS: 1

PSC: 0
NYC OS: 158
CEP: 1

Statistical Profile of American Samoa 1970-71

Population:

Total State:
15 - 19 yrs:
20 - 24 yrs:
25 - 65 yrs:

SMSA:
Urban:
Rural:

Negro:
Am.Indian:
Oriental:
White:
Other:

Total School Enrollment:

Elem (K-8): 6,013
Sec (9-12): 2,005
Post-Sec (13-14): NA
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 1,095
Post-Sec: 607
Adult: 0
Total: 1,702

Voc. Ed. Enroll. by Race*:

Negro: 0
Spanish Surnamed Americans: 0
Am.Indian: 0
Oriental: 0
Polynesian: 1,580
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 0
Rural: 1,580

Voc. Ed. Enroll. by Program:

Agriculture: 62
Distrib. Ed: 0
Health: 14
Cons.& Hmkg: 279
Occup. H.E.: 0
Office: 675
Technical: 0
Trade & Ind: 300

Occupationally Oriented Enrollments:

Gen Business:
Gen. Agriculture:
Industrial Arts:

Career Education Enrollment:
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs:
Total No. Voc. Ed. Teachers: 28

Tot. Disadv. Voc. Ed. Enroll: 1,564
Tot. Hndcpd. Voc. Ed. Enroll: 0

Total Coop Enrollment: 6
Tot. Work-Study Enroll: 15

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 104,985
Total Fed. Expenditures: $ 118,460
Total State/Local Expenditures: $ 96,639
Expenditures by Location: SMSA: $ 0 Urban $ 0
Rural: $ 215,099
Tot. Expenditures for Disadv: $ 185,605 Hndcpd: $ 6,816
Expenditures by Pgm: Agriculture: $ Distrib.Ed. $
Health: $ Cons.& Hmkg: $ 37,600 Occup.Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:

MDTA: NA
EOA: NA
Apprenticeship: 0

DoL Allocations in Occup. Reported Pgms:

MDTA $ 172,000
EOA $ 121,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: NA
MDTA OJT: NA
OIC: NA

MAINSTREAM: NA
WIN: NA
NEW CAREERS: NA

PSC: NA
NYC OS: NA
CEP: NA

Statistical Profile of Guam 1970-71

Population:

Total State:
15 - 19 yrs:
20 - 24 yrs:
25 - 65 yrs:

SMSA:
Urban:
Rural:

Negro:
Am.Indian:
Oriental:
White:
Other:

Total School Enrollment:

Elem (K-8): 19,259
Sec (9-12): 5,498
Post-Sec (13-14): 1,472
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 430
Post-Sec: 57
Adult: 2,330
Total: 2,817

Voc. Ed. Enroll. by Race*:

Negro:
Spanish Surnamed Americans:
Am.Indian:
Oriental:
Guamian: 3,008

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 0
Rural: 3,008

*Figures include 216 students under grade 9. 25 students shown in the Voc. Ed. Enrollment not shown in the enrollment by race.

Voc. Ed. Enroll. by Program:

Agriculture: 0
Distrib. Ed: 0
Health: 0
Cons.& Hmkg: 72
Occup. H.E.: 0
Office: 490
Technical: 143
Trade & Ind: 919

Occupationally Oriented Enrollments:

Gen Business:
Gen. Agriculture:
Industrial Arts:

Career Education Enrollment:
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs:
Total No. Voc. Ed. Teachers: 30

Tot. Disadv. Voc. Ed. Enroll: 910
Tot. Hndcpd. Voc. Ed. Enroll: 31

Total Coop Enrollment: 43
Tot. Work-Study Enroll: 6

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 349,132
Total Fed. Expenditures: $ 330,333
Total State/Local Expenditures: $ 409,720
Expenditures by Location: SMSA: $ 0 Urban $ 0
Rural: $ 740,053
Tot. Expenditures for Disadv: $ 77,651 Hndcpd: $ 26,672
Expenditures by Pgm: Agriculture: $ Distrib.Ed. $
Health: $ Cons.& Hmkg: $ 31,036 Occup.Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:

MDTA: NA
EOA: NA
Apprenticeship: 377

DoL Allocations in Occup. Reported Pgms:

MDTA $ 216,000
EOA $ 252,000 *

*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst:	NA	MAINSTREAM:	NA	PSC:	NA
MDTA OJT:	NA	WIN:	NA	NYC OS:	NA
OIC:	NA	NEW CAREERS:	NA	CEP:	NA

Statistical Profile of Pacific Tr. Terr. 1970-71

Population:

Total State:
15 - 19 yrs:
20 - 24 yrs:
25 - 65 yrs:

SMSA:
Urban:
Rural:

Negro:
Am. Indian:
Oriental:
White:
Other:

Total School Enrollment:

Elem (K-8): 25,709
Sec (9-12): 4,014
Post-Sec (13-14): NA
Adult: NA

Total Voc. Ed. Enrollment:

Sec: 2,683
Post-Sec: 132
Adult: 99
Total: 2,914

Voc. Ed. Enroll. by Race*:

Negro: 0
Spanish Surnamed Americans: 0
Am. Indian: 0
Oriental: 0
Micronesian: 2,914
*Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 0
Rural: 2,914

Voc. Ed. Enroll. by Program:

Agriculture: 414
Distrib. Ed: 0
Health: 26
Cons & Hmkg: 1,049
Occup. H.E.: 0
Office: 360
Technical: 0
Trade & Ind: 1,038

Occupationally Oriented Enrollments:

Gen Business:
Gen. Agriculture:
Industrial Arts:

Career Education Enrollment:
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs:
Total No. Voc. Ed. Teachers: 103

Tot. Disadv. Voc. Ed. Enroll: 2,914
Tot. Hndcpd. Voc. Ed. Enroll: 71

Total Coop Enrollment: 70
Tot. Work-Study Enroll: 74

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 239,786
Total Fed. Expenditures: $ 178,150
Total State/Local Expenditures: $ 1,332,500
Expenditures by Location: SMSA: $ 0
Urban $ 0
Rural: $ 1,510,650
Tot. Expenditures for Disadv: $ 110,401
Hndcpd: $ 14,079
Expenditures by Pgm: Agriculture: $
Distrib. Ed. $
Health: $
Cons. & Hmkg: $ 37,865
Occup. Home Ec: $
Office: $
Tech: $
Trade & Ind: $

Total Occup. Reported DoL Enrollments:

MDTA: NA
EOA: NA
Apprenticeship: 0

DoL Allocations in Occup. Reported Pgms:

MDTA $ 118,000
EOA $ 406,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: NA
MDTA OJT: NA
OIC: NA

MAINSTREAM: NA
WIN: NA
NEW CAREERS: NA

PSC: NA
NYC OS: NA
CEP: NA

Statistical Profile of Puerto Rico 1970-71

Population:
- Total State:
- 15 - 19 yrs:
- 20 - 24 yrs:
- 25 - 65 yrs:
- SMSA:
- Urban:
- Rural:
- Negro:
- Am.Indian:
- Oriental:
- White:
- Other:

Total School Enrollment:
- Elem (K-8): 541,621
- Sec (9-12): 145,156
- Post-Sec (13-14): 35,003
- Adult: NA

Total Voc. Ed. Enrollment:
- Sec: 65,032
- Post-Sec: 15,545
- Adult: 29,232
- Total: 109,809

Voc. Ed. Enroll. by Race*:
- Negro: NA
- Spanish Surnamed Americans: NA
- Am.Indian: NA
- Oriental: NA
- Other: NA
- *Figures include 0 students under grade 9.

Voc. Ed. Enroll. by Location:
- SMSA: 53,965
- Urban: 40,478
- Rural: 74,074

Voc. Ed. Enroll. by Program:
- Agriculture: 4,641
- Distrib. Ed: 10,363
- Health: 1,540
- Cons.& Hmkg: 49,218
- Occup. H.E.: 2,905
- Office: 18,400
- Technical: 1,751
- Trade & Ind: 20,991

Occupationally Oriented Enrollments:
- Gen Business:
- Gen. Agriculture:
- Industrial Arts: 44,717 *
- *Includes duplication.

Career Education Enrollment:
Total No. Schools Offering Voc. Ed: 208
Total No. of Voc. Ed. Programs: 1,009
Total No. Voc. Ed. Teachers: 2,993

Tot. Disadv. Voc. Ed. Enroll: 54,104
Tot. Hndcpd. Voc. Ed. Enroll: 750
Total Coop Enrollment: 5,212
Tot. Work-Study Enroll: 798

Voc. Ed. Funding/Expenditures:
- Total Fed. Allocation: $7,531,204 Total Fed. Expenditures: $7,725,717
- Total State/Local Expenditures: $14,277,438
- Expenditures by Location: SMSA: $ Urban $ Rural: $22,003,155
- Tot. Expenditures for Disadv: $5,177,243 Hndcpd: $495,580
- Expenditures by Pgm: Agriculture: $ Distrib.Ed. $
  - Health: $ Cons.& Hmkg: $5,046,347 Occup.Home Ec: $
  - Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:
- MDTA: NA
- EOA: NA
- Apprenticeship: 2,094

DoL Allocations in Occup. Reported Pgms:
- MDTA $6,235,000
- EOA $6,533,000 *
- *Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst:	NA	MAINSTREAM:	NA	PSC:	NA
MDTA OJT:	NA	WIN:	NA	NYC OS:	NA
OIC:	NA	NEW CAREERS:	NA	CEP:	NA

Statistical Profile of Virgin Islands **1970-71**

Population:

Total State:
15 - 19 yrs:
20 - 24 yrs:
25 - 65 yrs:

SMSA:
Urban:
Rural:

Negro:
Am.Indian:
Oriental:
White:
Other:

Total School Enrollment:

Elem (K-8): 15,093
Sec (9-12): 3,767
Post-Sec (13-14): 239
Adult:

Total Voc. Ed. Enrollment:

Sec: 1,744
Post-Sec: 25
Adult: 0
Total: 1,769

Voc. Ed. Enroll. by Race*:

Negro: 2,661
Spanish Surnamed Americans: 0
Am.Indian: 0
Oriental: 0
Other: 0
*Figures include 892 students under grade 9.

Voc. Ed. Enroll. by Location:

SMSA: 0
Urban: 0
Rural: 2,661

Voc. Ed. Enroll. by Program:

Agriculture: 83
Distrib. Ed: 9
Health: 11
Cons.& Hmkg: 0
Occup. H.E.: 606
Office: 428
Technical: 25
Trade & Ind: 407

Occupationally Oriented Enrollments:

Gen Business:
Gen. Agriculture:
Industrial Arts:

Career Education Enrollment:
Total No. Schools Offering Voc. Ed:
Total No. of Voc. Ed. Programs: 1,212
Total No. Voc. Ed. Teachers: 58

Tot. Disadv. Voc. Ed. Enroll: 217
Tot. Hndcpd. Voc. Ed. Enroll: 23

Total Coop Enrollment: 136
Tot. Work-Study Enroll: 7

Voc. Ed. Funding/Expenditures:

Total Fed. Allocation: $ 153,715 Total Fed. Expenditures: $ 149,736
Total State/Local Expenditures: $ 738,409
Expenditures by Location: SMSA: $ 0 Urban $ 0
Rural: $ 888,145
Tot. Expenditures for Disadv: $ 192,332 Hndcpd: $ 39,902
Expenditures by Pgm: Agriculture: $ Distrib.Ed. $
Health: $ Cons.& Hmkg: $ 163,057 Occup.Home Ec: $
Office: $ Tech: $ Trade & Ind: $

Total Occup. Reported DoL Enrollments:

MDTA: NA
EOA: NA
Apprenticeship: 0

DoL Allocations in Occup. Reported Pgms:

MDTA $ 99,000
EOA $ 1,203,000 *
*Allocations for OIC and New Careers were not available.

MDTA and EOA Enrollments by Program:

MDTA Inst: NA
MDTA OJT: NA
OIC: NA

MAINSTREAM: NA
WIN: NA
NEW CAREERS: NA

PSC: NA
NYC OS: NA
CEP: NA

Additional State Data

Many of the States are using computers to compile vocational education data either not required in their Federal reports or in greater detail than required. These range from fairly extensive individual student, teacher, and cost data to local and State summaires based on school totals only. In every case, State department officals and often local administrators have a more complete picture of their relative strengths and weaknesses, as well as analytical detail, and by comparing the printouts of one year with those of previous years they can identify trends and changing patterns. They are thus in a position to manage their resources so as to affect the outcome rather than merely to observe the process.

Some of the data thus obtained have been included in the preceding individual State descriptions, but the great quantity availabe in computer printouts from about twenty States would be impractical to include in a national report. Very brief excerpts from two States are shown simply to present a glimpse of what is being done. These two States, Florida, and Iowa, have data systems that are fairly advanced, but by no means better or more detailed than those of at least a dozen other States. Their inclusion here is reprsentative rather than indicative of special attention.

Florida has a series of six printouts of enrollment compilations and analyses. One contains a complete breakdown of every occupational program in every school, county, and the State, giving numbers of sex, ethnic group, work study, completions, withdrawals, handicapped and disadvantaged, and these are totaled by county, giving enrollment, completions withdrawals, disadvantaged, and handicapped. In another printout student enrollments in every program in every school are given by ethnic groups and these are totaled by county. A third printout gives class data including teacher's name, course, enrollment by sex, students and instructional hours, disadvantaged, handicapped, and full-time equivalent enrollments. A fourth printout gives State enrollment totals for each course by sex, disadvantaged and handicapped, grade level, and cooperative programs; these are totaled by occupational area. A fifty printout lists total enrollments for each occupational course within each county, and these are separated into completions, withdrawals, disadvantaged and handicapped, the latter two being separately divided into completions and withdrawals. Finally, a State summary printout gives enrollments in each course divided into male and female, disadvantatged and handicapped, grade level, and cooperative programs. Altogether, these printouts enable administrators and vocational educators in Florida to have virtually a complete profile of their vocational education enrollment each year at every level and in each occupational program by sex, ethnic group, special needs, and cooperative programs.

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VT-107               DIVISION OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION                    PAGE 1007
                                CLASS OPERATIONS BY INSTRUCTOR
                          SECTION 9 - INDUSTRIAL

                 REPORTING PERIOD - JULY 1, 1970 THROUGH JUNE 30, 1971

CO SCHL LOC        LAST     CRSE STU  ENROLL  STUD  INSTR  K  DISADV  HANDCAP  DISADV HDCP    FTE     UNITS      TOTAL  ACT
NO          NO     NAME     NO   CLS  M   F   HOURS HOURS  P  M   F   M   F    HOURS  HOURS         0-14 15-OVR ENROLL UNT

16 0221 243765 LAZENBY      9360 09  112 000   3997   225 G  000 000 000 000      0     0
16 0222 253449 HORNE        9350 09  104 000   3740   225 G  000 000 000 000      0     0
16 0221 254613 RICCIARDE    9360 09  100 000   3552   225 G  000 000 000 000      0     0
16 0221 276595 KELLY        9380 09  103 000   3669   225 G  000 000 000 000      0     0
                                              14958   900                                    18.4  1.00   .00    419   1.00
                                                      900

16 0251 244785 SNYDER       9360 09  101 000   2420   225 G  000 000 000 000      0     0
16 0251 265 YE              9360 09  079 000   2516   225 G  000 000 000 000      0     0
16 0251 267243 SPE          93  09   070 000   2299       G  000 000 000 000      0     0
16 0251 26                       064 000   216            000 000 000 000          0
                                                                                             11.6  1.00               1.00
```

```
VTD-104                          ENROLLMENTS IN VOCATIONAL                            PAGE   3
                                   EDUCATION PROGRAMS
                               BY PROGRAM AREA WITHIN STATE

                                       BUSINESS

                                                        *-SECONDARY--* POST   *--------ADULT-------*  *-COOPERATIVE*
OE CODE    PROG NAME         FEMALE   MALE    DISA   HAND   BELOW  GRADES SECOND PREPAR SUPPLE APPREN     B       G
                                                              9     9-12

04.990000  DISTRIBUTIVE         26     100                            126
  010100   ACCOUNTING BA                        50     11                   502    556    46
           BOOKKEEPI                                                        357           
```

```
CO SCHOOL PROGRAM   PROGRAM NAME                        AM IND  NEGRO   ORIENT  SPAN AM  OTHER  TOTAL

29  4601  09010000  COMP HOME ECONOMICS                     0      47       0       25      6     78
                                                            0     156       0       30     13    199

29  4729  21000000  COMP HOME ECONOMICS                     0      21       0       38      8     67
                                                            0      21       0       38      8     67

29  4761  09010000  AGRICULTURAL EDUCATI- 0|                0       9       0        0     86     95
                                                            0       9       0        0     66     95

    5041  01990000  COMP      ECONOM                               91       0        0      4     95
     041  09010000  CO        CONO                                215       0               9    224
          21000000            000          00000000                64                       3     67
                                                                                           16
```

```
VTD-104                          ENROLLMENTS IN VOCATIONAL                                          PAGE
                                   EDUCATION PROGRAMS
                                    FLORIDA SUMMARY

                                                        *--SECONDARY--* POST   *--------ADULT-------*  *-COOPERATIVE*
OE CODE      PROG NAME        FEMALE  MALE    DISA   HAND   BELOW  GRADES SECOND PREPAR SUPPLE APPREN     B       G
                                                              9     9-12

*04.029900   000000000000       607    503    304     58    921    183           206                            18
*14.010100   ACCOUNTING BA      639    269     50     11      4           502    556    46
*14.010200   BOOKKEEPI        2 105    657    408             8    900    357    628  1,469
*14.020000                             206                          57           400    393
                                                                                      ,433
```

```
VTD105                              COMPLETIONS BY VOCATIONAL SERVICE       PAGE  81
                                             WITHIN COUNTY

                                                 DADE

PROGRAM AREA - BUSINESS
                                             ****** SPECIAL NEEDS INCLUDED IN TOTAL ******
              TOTAL     TOTAL     TOTAL        DISA      HAND      DISA      HAND      WITH
OE CODE       ENROLL    COMPLET   W/DRAW       ENROLL    ENROLL    COMPLET   COMPLET   DRAW

14.010100       109        39                    23        10         2         4
14.010200     1,462       486       363         159        22        74         3        28
14.020000       354       189        54                     3        18         3
14.030000       378       166       113                                                  19
14.03           28                    5
                                     21                    27                            31
                                                                                          6
```

Iowa, which has pioneered for more than a decade in educational data systems based on the use of computers, has its vocational education data analyzed and printed out in so many different ways that a brief review is impossible. Printout f[illegible] #1589, a sample of which is shown here, is available in seventy-six different ways. Summaries are printed out for all programs in the State at the secondary, post-secondary, and adult levels. Other printouts include a career (vocational) education directory by school and school district listing telephone numbers and all programs offered; and a taxonomy location by course title and OE number listing school districts alphabetically and schools and telephone numbers where the course is taught. Iowa's data systems are sufficiently advanced to enable vocational education enrollment and course data to be analyzed with economic data at county, area, and regional levels as well as for the entire State. These can also be produced by SMSA, non-SMSA, and central city classifications. Vocational enrollments in the State at every level can thus be examined in virtually any combination or set of combinations of course, sex, ethnic group, handicapped, disadvantaged, completions, withdrawals, economic and geographic categories.

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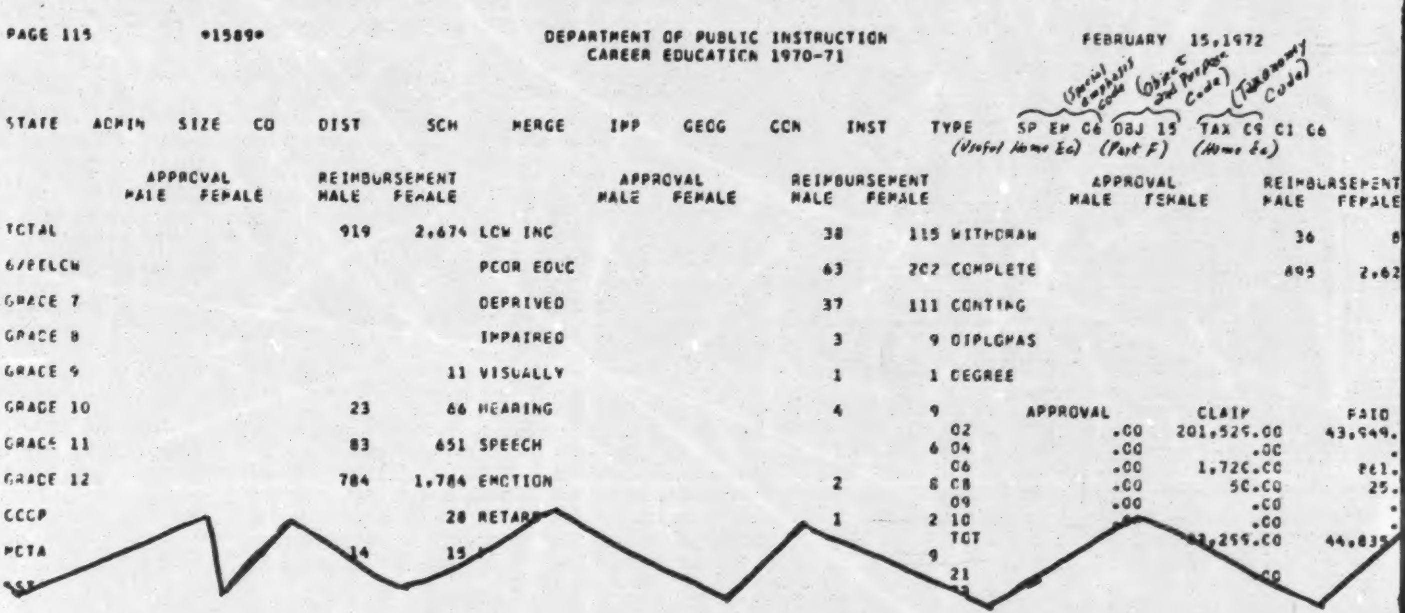

```
PAGE 115        *1589*                    DEPARTMENT OF PUBLIC INSTRUCTION                 FEBRUARY  15,1972
                                             CAREER EDUCATION 1970-71

STATE  ADMIN  SIZE  CO   DIST    SCH   MERGE   IMP   GEOG   CCN   INST   TYPE   SP EM C6 OBJ 15  TAX C9 C1 C6

         APPROVAL       REIMBURSEMENT               APPROVAL       REIMBURSEMENT               APPROVAL       REIMBURSEMENT
       MALE   FEMALE    MALE   FEMALE             MALE   FEMALE    MALE   FEMALE             MALE   FEMALE    MALE   FEMALE

TOTAL                    919    2,674 LOW INC                        38      115 WITHDRAW                        36       8
6/BELOW                                POOR EDUC                      63      202 COMPLETE                       895    2,62
GRADE 7                                DEPRIVED                       37      111 CONTING
GRADE 8                                IMPAIRED                        3        9 DIPLOMAS
GRADE 9                            11 VISUALLY                         1        1 DEGREE
GRADE 10                  23       66 HEARING                          4        9         APPROVAL       CLAIM          PAID
                                                                                 02           .00    201,525.00     43,949.
GRADE 11                  83      651 SPEECH                                    6 04           .00           .00
                                                                                 06           .00      1,720.00        861.
GRADE 12                 784    1,784 EMOTION                          2        6 08           .00         50.00        25.
                                                                                 09           .00           .00
CCCP                               28 RETAR                            1        2 10                         .00
                                                                                 TOT                 [illegible],255.00     44,835
PCTA                      14       15                                           9
                                                                                 21                          .00
```

(Special emphasis code)
(Object and Purpose Code)
(Taxonomy Code)
(Useful Home Ec)
(Part F)
(Home Ec)

```
AGE  64        *1588*     DEPARTMENT OF PUBLIC INSTRUCTION        FEBRUARY  22,1972
                                CAREER ED. DIRECTORY

      MASON CITY              50401

      MASON CITY COMM SCH DIST  TEL 515-423-3860
      120 EAST STATE                  17-4131- 000
      MASON CITY              50401

      0000000000

      MASON CITY HIGH SCHOOL    TEL 515-423-6512
      1700 FOURTH SE                  17-4131- 109
      MASON CITY              50401

      0101040000
      0101010000
      0101020000
      0101030000
      0102000000    ****AGRICULTURAL SUPPLIES & SERVICES  AGRIBUSINE
      0103000000    ****AGRICULTURAL MECHANICS
      0105000000    ****HORTICULTURE
      0400000000    ****DISTRIBUTIVE EDUCATION
      0400000000    ****DISTRIBUTIVE EDUCATION
      1700000000    ****TRADE AND INDUSTRIAL OCCUPATIONS
      1905020000

    MAURICE-ORANGE CITY COMM    TEL 712-737-4871
      SCH DIST                        84-4149- 000
      61       TH ST SE
                              51041
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AGE 131       *1587*      DEPARTMENT OF PUBLIC INSTRUCTION             FEBRUARY  22,1972
                                 TAXONOMY LOCATION

DMIN   TYPE  SPEM
         02    11

      1710010000    ****CARPENTRY

    FORT MADISON COMM                                       56-2322- 000
      FT MADISON HIGH SCHOOL               TEL 319-372-1862 56-2322- 109

    WEST DELAWARE CO COMM                                   28-6950- 000
      WEST DELAWARE HIGH SCH               TEL 319-927-3515 28-6950- 109

      1710050000    ****PAINTING AND DECORATING

    DES MOINES IND COMM                                     77-1737- 000
      DES MOINES TECH HIGH SCH             TEL 515-284-7846 77-1737- 145

      1712000000    ****DIESEL MECHANIC

    DES MOINES IND COMM                                     77-1737- 000
      DES MOINES TECH HIGH SCH             T  515-284-7846  77-1737-
          0000      ****DRA
```

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E    2          *1589*               DEPARTMENT OF PUBLIC INSTRUCTION                FEBRUARY  16,1972
                                       CAREER EDUCATION 1970-71
                             (State Summary - all programs - Secondary level)

TE   ADMIN   SIZE   CO    DIST     SCH     MERGE    IMP    GEOC 1  CON    INST 02 TYPE     SP EM    OBJ     TAX
                                                                       (Secondary)

          APPROVAL         REIMBURSEMENT               APPROVAL         REIMBURSEMENT               APPROVAL         REIMBURSEMENT
        MALE   FEMALE      MALE   FEMALE             MALE   FEMALE      MALE   FEMALE             MALE   FEMALE      MALE   FEMALE

L                         15,019   20,001 LOW INC                        609      829 WITHDRAW                        370      440

ELCH                          17        8 POOR EDUC                    1,168    1,047 COMPLETE                     14,080   19,183

E 7                           63       70 DEPRIVED                       141      216 CONTING                          26        9

E 8                           70       48 IMPAIRED                        57       87 DIPLOMAS                         24

E 9                        3,128    5,493 VISUALLY                        22       28 DEGREE

E 10                       3,200    4,134 HEARING                         50       50         APPROVAL         CLAIM          PAID
                                                                                     02            .00 6,916,934.32 1,278,260.73
F 11                       3,597    3,683 SPEECH                          25       17 04            .00     5,445.00    14,384.74
                                                                                     06            .00   145,179.02    63,085.58
E 12                       4,617    6,326 EMOTION                         81       97 08            .00     9,958.77       493.68
                                                                                     09            .00       356.00       182.16
                           2,057      919 RETARDED                       327      339 10            .00     2,979.00          .00
                                                                                     TOT           .00 5,080,892.11 1,356,406.89
                              20       22 LEARNING                        45       93
                                                                                     21            .00                       .00
                                                                                                   .00                 0,662.00
                                                                                                   .00                       .00
                                                                                                   .00
```

Chapter IV

NATIONAL CONCENTRATIONS OF VOCATIONAL EDUCATION AND MANPOWER TRAINING

All Reported Programs

Vocational education is capable of reaching virtually the entire population, with program offerings concentrated according to population density and need. Manpower training and apprenticeship programs are limited to some extent by the employment market, but the employment market is broadly related to population density also. Numbers of persons in all programs, therefore, should bear a general relationship to population density. This relationship is examined in Tables 29 through 33B.

The geographic distribution of Federally reported programs can be shown by Standard Metropolitan Statistical Area (SMSA), central city, and rural; but for vocational education these cannot be related to census data for the total population.[1] Density, therefore, cannot be measured, and this is extremely regrettable. County enrollment figures would give an even better geographic picture within States and these are available in manpower programs but not in vocational education in all States. An even better means of identifying geographic distribution would be through the use of postal zip codes; again this is possible with U.S. Department of Labor manpower programs but with vocational education programs in only a portion of the States. Such a distribution would show concentrations and gaps within large metropolitan areas where transportation and school or training location may be critical factors in the opportunity for education for large numbers of students.

Even with the limited data available at this time, geographic patterns on a national scale and among the States can be observed. Table 29 shows how the nearly ten million Federally reported vocational education and manpower training enrollees in 1970-71 were concentrated among the States. Nationally, 47.7 persons were being trained for each 1,000 population. Within the States this varied widely from a high of 93.7 per 1,000 in Utah to a low of 23.0 per 1,000 in Rhode Island. Some of the factors responsible for the differences almost certainly include variations in reporting secondary vocational education students, the existence of strong private training programs in some States, and relative success by State Departments of Vocational Education and local schools in expanding their programs. These and other causal factors will be examined in subsequent reports by Project Baseline. The great majority of States are grouped close to the national average, suggesting that while special circumstances and perhaps exceptional public support do exist in a few States, for the most part Federally supported training is distributed fairly evenly on a population basis alone.

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[1] SMSAs cross State lines, while vocational enrollments do not. At the time of this report, Census data showing SMSA, central city and rural were not available. In addition, the U.S. Office of Education requires only estimated enrollment data by geographic subdivision from the States, therefore tables could not be prepared this year, but will appear in Volume II, 1971-72.

Thirty-three States reported enrollees per 1,000 population within ten on either side of the national figure. On the low side, more than ten per 1,000 below the national figure were nine States -- South Dakota (34.9), Vermont (33.9), New Hampshire (33.6), Missouri (32.2), Pennsylvania (31.5), Maine (27.9), Indiana (27.5), Massachusetts (24.6) and Rhode Island (23.0) -- and the District of Columbia (25.2). The most noticeable pattern among the States on the low side of the national figure is that every New England State is included. All except Connecticut are more than ten per 1,000 lower and Connecticut is 7.9 lower. One of two conclusions can be drawn: either the New England States are reporting proportionately fewer of their vocational education students than the rest of the Nation,[1] or their are proportionately fewer public education and training opportunities available for those who need them or qualify. The same conclusions are true of Indiana, Missouri, Pennsylvania, South Dakota, and the District of Columbia, but this is probably not enough to account for a figure of little more than half the total students per 1,000 population compared with the Nation as a whole.

There are nineteen States on the high side of the national figure, eight of them by at least ten enrollees per 1,000 population.

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[1] There are two known cases of substantial non-reporting in this region, which suggests the possibility that New England's poor showing is a statistical error. In Vermont only 173 post-secondary students are reported, students in the practical nurse program administered through the State Department of Education. Several associate degree programs in nurse education, allied health occupations, and technical education are not currently being reported because they are administered through different State agencies. In Massachusetts the Lowell Evening School, a State supported institution with courses offered all over the State, has approximately 5,000 students enrolled. The great majority of them are in skill training programs, none of whom are reported as vocational or technical education students because this institution does not report through the State Department of Education.

TABLE 29

Enrollment in Federally Reported Vocational Education, Manpower, and Apprenticeship Training, per 1,000 Population, 1970-71

States	Total Population	Enrollment in Vocational Education, Manpower, and Apprenticeship Programs	Enrollments per 1,000 Population
U. S. TOTAL	203,220,097	9,684,155	47.7
Alabama	3,444,165	151,689	44.0
Alaska	300,382	14,751	49.1
Arizona	1,773,420	96,964	54.7
Arkansas	1,923,295	109,812	57.0
California	19,953,134	1,258,877	63.0
Colorado	2,207,259	104,054	47.1
Connecticut	3,031,709	120,720	39.8
Delaware	548,104	32,707	59.7
Dist. of C.	756,510	19,094	25.2
Florida	6,789,443	446,427	65.8
Georgia	4,589,575	267,129	58.2
Hawaii	769,913	40,845	53.1
Idaho	712,567	32,529	45.7
Illinois	11,113,976	568,501	51.2
Indiana	5,193,669	142,784	27.5
Iowa	2,824,376	134,220	47.5
Kansas	2,246,578	98,369	43.8
Kentucky	3,218,706	155,517	48.3
Louisiana	3,641,306	181,576	49.9
Maine	992,048	27,637	27.9
Maryland	3,922,399	150,231	38.3
Massachusetts	5,689,170	139,801	24.6
Michigan	8,875,083	342,057	38.5
Minnesota	3,804,971	228,236	60.0
Mississippi	2,216,912	108,178	48.8

TABLE 29 Cont'd

States	Total Population	Enrollment in Vocational Education, Manpower, and Apprenticeship Programs	Enrollments per 1,000 Population
Missouri	4,676,501	150,602	32.2
Montana	694,409	30,631	44.1
Nebraska	1,483,493	69,169	46.6
Nevada	488,738	20,089	41.1
New Hampshire	737,681	24,771	33.6
New Jersey	7,168,164	309,783	43.2
New Mexico	1,016,000	53,616	52.8
New York	18,241,266	709,694	38.9
N. Carolina	5,082,059	391,325	77.0
N. Dakota	617,761	27,895	45.2
Ohio	10,652,017	412,172	38,7
Oklahoma	2,559,229	113,774	44.5
Oregon	2,091,385	108,294	51.8
Pennsylvania	11,793,909	371,947	31.5
Rhode Island	946,725	21,810	23.0
S. Carolina	2,590,516	100,385	38.8
S. Dakota	665,507	23,254	34.9
Tennessee	3,923,687	155,979	39.8
Texas	11,196,730	604,604	54.0
Utah	1,059,273	99,224	93.7
Vermont	444,330	15,052	33.9
Virginia	4,648,494	249,496	53.7
Washington	3,409,169	238,366	69.9
W. Virginia	1,744,237	66,912	38.4
Wisconsin	4,417,731	198,767	45.0
Wyoming	332,416	15,263	45.9
Guam	NA	2,817	NA
Puerto Rico	NA	111,407	NA
Virgin Isl.	NA	1,769	NA
Am. Samoa	NA	1,580	NA
Pac. Tr. Terr.	NA	2,914	NA
Unident. States	NA	8,089	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of Census, PC(1)-B1, U.S. Summary.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C. FY 1971.

Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

Apprenticeship Register Action - Total All States, U.S. Department of Labor, Chief of Reporting Operations, Financial and Management Information Systems, Manpower Administration. (Calendar years 1970 & 1971 combined to form FY 1971).

Utah heads the list by a substantial margin, followed by North Carolina (77.0), Washington (69.9), Florida (65.8), California (63.0), Minnesota (60.0), Delaware (59.7), and Georgia (58.2). No geographic pattern is evident here. Every section of the country is represented, except the Northeast. States with large populations and relatively small populations are included, as are States with heavy minority populations and States with light minority populations, and States which are both predominately urban and predominately rural. Possibly greater effort, public support, and administrative leadership have gone into the training programs in these States; if this is true there is nothing unique in their geographic, sociologic, or economic structure to suggest that their example cannot be duplicated elsewhere.

Vocational Education

Enrollment per 1,000 population. For the school year 1970-71, the total vocational education enrollment per 1,000 population ranged from a high of 89.7 in Utah to a low of 14.6 in the District of Columbia. The national average for enrollment per 1,000 population was 44.4. The two States nearest the mean were Kentucky (45.1) and Nebraska (44.0).

Although causal factors responsible for the differences among the States are undetermined, it is probably that a number of them are directly related to program implementation. These would include the following: implementation policy; State allocation of vocational education resources; State leadership in the promotion and development of vocational education; relationships of management and labor and of business and industry to the vocational education program; role of professional associations; congressional and legislative support; parental concern; and a host of other factors.

Secondary school enrollment in vocational education compared with total population in the 15-19 age group. Vocational education enrollment in the secondary schools compared with the population age group 15-19 years provides an index for comparison of the States. This is a particularly important area of study because the age group represents those individuals beginning employment, and the secondary school represents the location where in-depth preparation and specialization begins. Here, too, is where the masses are, and where the greatest challenges are.

On a national basis vocational education reaches 26.3 percent of the total age group — probably about one-third of the age group which should be reached by vocational education. Enrollment varies from a high of 55.9 percent of the age group (Utah) to a low of 8.7 percent (District of Columbia). Depth analysis of the causal factors is important at this point. Furthermore, the components of enrollment for each State must be examined to determine which areas of vocational education contribute the most, and the least, to each State's total effort. The enrollment data obtained for successive years will represent trends in each State's development of vocational education.

Enrollment comparisons alone are not sufficient, however. Data must be obtained from the States to provide an index showing what has

TABLE 30A

Total Enrollment in Vocational Education, Per 1,000 Population, 1970-71

States	Total Population	Total Vocational Education Enrollment	Total Vocational Education Enrollment per 1,000 Population
U.S. TOTAL	203,220,097[1]	9,029,495[1]	44.4
Alabama	3,444,165	147,220	42.7
Alaska	300,382	13,147	43.8
Arizona	1,773,420	88,471	49.8
Arkansas	1,923,295	103,907	54.0
California	19,953,134	1,204,611	60.4
Colorado	2,207,259	95,309	43.2
Connecticut	3,031,709	113,694	37.5
Delaware	548,104	31,211	56.9
Dist. of C.	756,510	11,008	14.6
Florida	6,789,443	438,087	64.5
Georgia	4,589,575	255,887	55.8
Hawaii	769,913	38,692	50.3
Idaho	712,567	30,370	42.6
Illinois	11,113,976	541,178	48.7
Indiana	5,193,669	131,338	25.3
Iowa	2,824,376	127,911	45.3
Kansas	2,246,578	93,151	41.5
Kentucky	3,218,706	145,324	45.1
Louisiana	3,641,306	174,373	47.9
Maine	992,048	23,424	23.6
Maryland	3,922,399	141,774	36.1
Massachusetts	5,689,170	121,950	21.4
Michigan	8,875,083	320,055	36.1
Minnesota	3,804,971	219,085	57.6
Mississippi	2,216,912	101,768	45.9

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[1] 1970 population figures not available for Guam, Puerto Rico, Virgin Islands, American Samoa, and Pacific Trust Territories, therefore they are not included. Total Voc. Ed. Enrollment will not match other tables due to this deletion.

TABLE 30A Cont'd

States	Total Population	Total Vocational Education Enrollment	Total Vocational Education Enrollment per 1,000 Population
Missouri	4,676,501	143,632	30.7
Montana	694,409	27,328	39.4
Nebraska	1,483,493	65,318	44.0
Nevada	488,738	18,110	37.1
New Hampshire	737,681	23,082	31.3
New Jersey	7,168,164	292,516	40.8
New Mexico	1,016,000	49,178	48.4
New York	18,241,266	669,717	36.7
N. Carolina	5,082,059	376,817	74.1
N. Dakota	617,761	26,215	42.4
Ohio	10,652,017	389,044	36.5
Oklahoma	2,559,229	104,223	40.7
Oregon	2,091,385	101,090	48.3
Pennsylvania	11,793,909	337,835	28.6
Rhode Isl.	946,725	18,370	19.4
S. Carolina	2,590,516	93,616	36.1
S. Dakota	665,507	21,413	32.2
Tennessee	3,923,687	143,572	36.6
Texas	11,196,730	577,695	51.6
Utah	1,059,273	94,983	89.7
Vermont	444,330	12,593	28.3
Virginia	4,648,494	243,000	52.3
Washington	3,409,169	226,118	66.3
W. Virginia	1,744,237	59,199	33.9
Wisconsin	4,417,731	187,637	42.5
Wyoming	332,416	14,249	42.9
Guam			
Puerto Rico			
Virgin Isl.			
Am. Samoa			
Pac. Tr. Terr.			

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 30B

Rank Order of States by Total Enrollment in Vocational Education per 1,000 Population, 1970-71

U.S. MEAN = 44.4

State	Enrollment per 1,000	State	Enrollment per 1,000
Utah	89.7	Kansas	41.5
North Carolina	74.1	New Jersey	40.8
Washington	66.3	Oklahoma	40.7
Florida	64.5	Montana	39.4
California	60.4	Connecticut	37.5
Minnesota	57.6	Nevada	37.1
Delaware	56.9	New York	36.7
Georgia	55.8	Tennessee	36.6
Arkansas	54.0	Ohio	36.5
Virginia	52.3	South Carolina	36.1
Texas	51.6	Michigan	36.1
Hawaii	50.3	Maryland	36.1
Arizona	49.8	West Virginia	33.9
Illinois	48.7	South Dakota	32.2
New Mexico	48.4	New Hampshire	31.3
Oregon	48.3	Missouri	30.7
Louisiana	47.9	Pennsylvania	28.6
Mississippi	45.9	Vermont	28.3
Iowa	45.3	Indiana	25.3
Kentucky	45.1	Maine	23.6
Nebraska	44.0	Massachusetts	21.4
Alaska	43.8	Rhode Island	19.4
Colorado	43.2	Dist. of Columbia	14.6
Wyoming	42.9		
Alabama	42.7		
Idaho	42.6		
Wisconsin	42.5		
North Dakota	42.4		

FIGURE 2

COMPARISON OF STATES BY TOTAL ENROLLMENT
IN VOCATIONAL EDUCATION PER 1,000 POPULATION, 1970-71

U.S. MEAN = 44.4

BEST COPY AVAILABLE

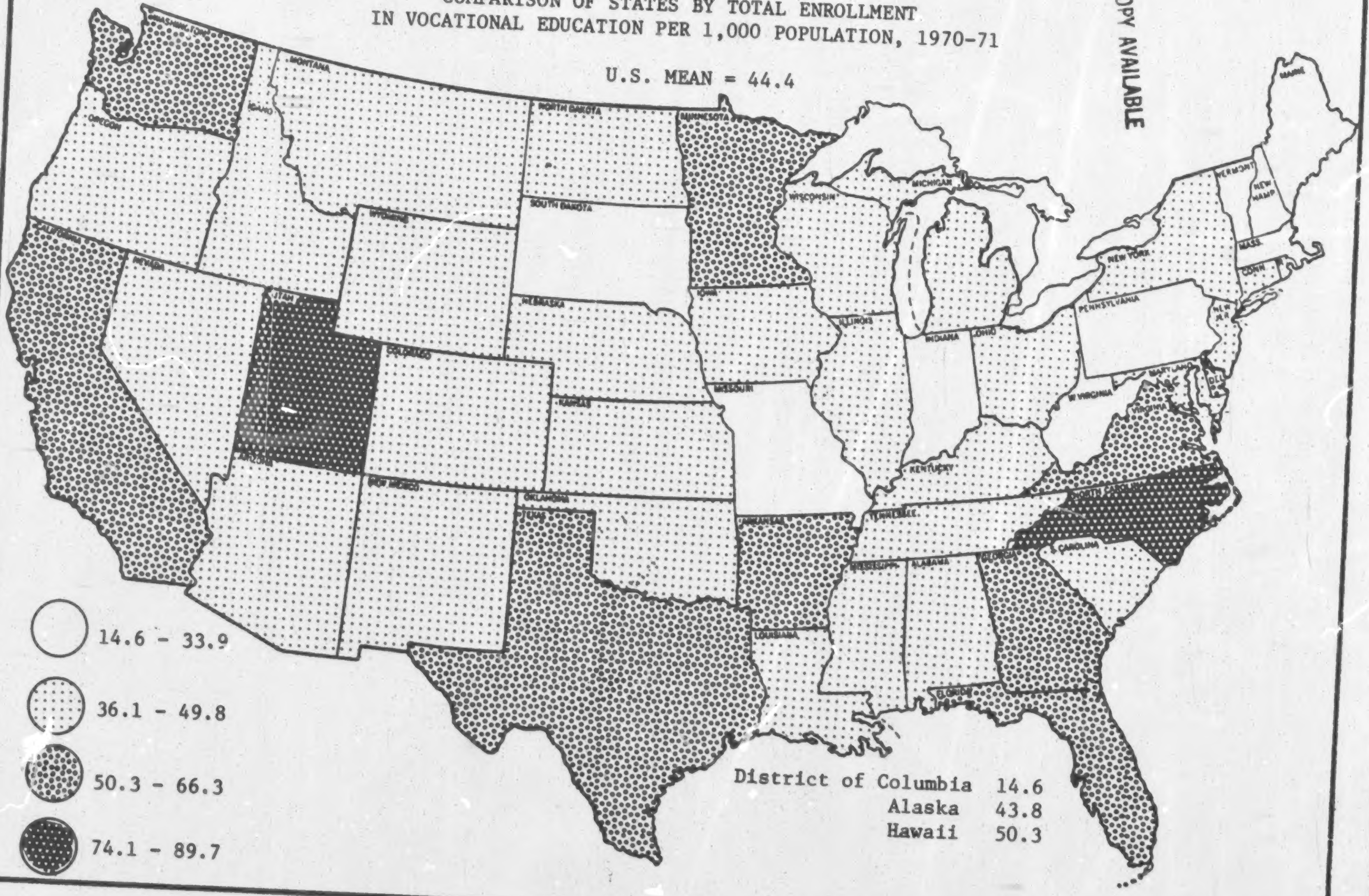
WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
CAROLINA
NORTH CAROLINA
VIRGINIA
W VIRGINIA
MARYLAND
DEL
PENNSYLVANIA
NEW YORK
NEW JER
CONN
MASS
VERMONT
NEW HAMP
MAINE
14.6 - 33.9
36.1 - 49.8
50.3 - 66.3
74.1 - 89.7
District of Columbia 14.6
Alaska 43.8
Hawaii 50.3

TABLE 31A

Secondary Vocational Education Enrollment as a Percent of Total Population, 15-19 Years of Age, 1970-71

States	Total Population 15-19 Years of Age	Total Secondary Vocational Education Enrollment	Total Secondary Vocational Education Enrollment as a Percent of Total Population 15-19
U.S. TOTAL	19,319,457[1]	5,076,026[1]	26.3
Alabama	341,751	89,061	26.1
Alaska	26,768	8,494	31.7
Arizona	209,196	50,310	24.0
Arkansas	182,192	53,996	29.6
California	1,817,379	540,474	29.7
Colorado	217,451	45,998	21.2
Connecticut	264,053	78,191	29.6
Delaware	51,332	27,439	53.5
Dist. of C.	65,609	5,681	8.7
Florida	576,776	201,016	34.9
Georgia	442,571	157,829	35.7
Hawaii	71,843	23,040	32.1
Idaho	74,065	21,844	29.5
Illinois	1,011,062	432,217	42.7
Indiana	545,903	86,479	15.8
Iowa	273,475	50,211	18.4
Kansas	217,212	38,468	17.7
Kentucky	318,756	87,872	27.6
Louisiana	375,958	126,251	33.6
Maine	93,361	16,458	17.6
Maryland	356,139	100,668	28.3
Massachusetts	555,393	95,411	17.2
Michigan	872,624	164,234	18.8
Minnesota	373,405	104,837	28.1
Mississippi	232,971	54,729	23.5

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[1] 1970 population figures not available for Guam, Puerto Rico, Virgin Islands, American Samoa, and Pacific Trust Territories, therefore they are not included. Total Voc. Ed. Enrollment will not match other tables due to this deletion.

TABLE 31A Cont'd

States	Total Population 15-19 Years of Age	Total Secondary Vocational Education Enrollment	Total Secondary Vocational Education Enrollment as a Percent of Total Population 15-19
Missouri	429,653	98,547	22.9
Montana	70,346	16,707	23.7
Nebraska	143,175	38,336	26.8
Nevada	40,185	12,596	31.3
New Hampshire	67,264	18,378	27.3
New Jersey	611,831	181,476	29.7
New Mexico	105,164	35,305	33.6
New York	1,563,179	445,606	28.5
N. Carolina	519,514	161,697	31.1
N. Dakota	70,334	16,470	23.4
Ohio	1,012,221	181,937	18.0
Oklahoma	241,535	60,856	25.2
Oregon	229,632	55,022	24.0
Pennsylvania	1,168,554	184,619	15.8
Rhode Isl.	85,680	12,026	14.0
S. Carolina	282,703	70,655	25.0
S. Dakota	69,989	14,331	20.5
Tennessee	377,954	95,472	25.3
Texas	1,092,752	306,570	28.1
Utah	116,607	65,131	55.9
Vermont	44,397	9,601	21.6
Virginia	440,872	129,770	29.4
Washington	329,903	111,681	33.9
W. Virginia	172,386	33,161	19.2
Wisconsin	433,153	57,017	13.2
Wyoming	33,229	11,851	35.7
Guam			
Puerto Rico			
Virgin Isl.			
Am. Samoa			
Pac. Tr. Terr.			

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C. FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 31B

Rank Order of States by Secondary Vocational Education Enrollment as a Percent of Total Population, 15-19 Years of Age, 1970-71

U.S. MEAN = 26.3

State	Percent	State	Percent
Utah	55.9	Oklahoma	25.2
Delaware	53.5	South Carolina	25.0
Illinois	42.7	Arizona	24.0
Georgia	35.7	Oregon	24.0
Wyoming	35.7	Montana	23.7
Florida	34.9	Mississippi	23.5
Washington	33.9	North Dakota	23.4
New Mexico	33.6	Missouri	22.9
Louisiana	33.6	Vermont	21.6
Hawaii	32.1	Colorado	21.2
Alaska	31.7	South Dakota	20.5
Nevada	31.3	West Virginia	19.2
North Carolina	31.1	Michigan	18.8
California	29.7	Iowa	18.4
New Jersey	29.7	Ohio	18.0
Arkansas	29.6	Kansas	17.7
Connecticut	29.6	Maine	17.6
Idaho	29.5	Massachusetts	17.2
Virginia	29.4	Indiana	15.8
New York	28.5	Pennsylvania	15.8
Maryland	28.3	Rhode Island	14.0
Minnesota	28.1	Wisconsin	13.2
Texas	28.1	Dist. of Columbia	8.7
Kentucky	27.6		
New Hampshire	27.3		
Nebraska	26.8		
Alabama	26.1		
Tennessee	25.3		

happened in the various States to cause enrollment to be as high, or as low, as it is. For example, something significant must have happened in the States of Delaware and Utah to cause enrollment ratios in these States to be significantly higher than all the rest.

Post-secondary enrollment in vocational education compared with total population in the 20-24 year age group. Impact of vocational education in post-secondary institutions, but not including the baccalaureate degree, is extremely important because at this level vocational education hits hard at preparation for technical occupations. On a national basis vocational education is reaching 6.6 percent of the age group 20-24 years. The range is from 19.7 percent (Washington) to 1.1 percent (South Carolina).[1] This age group is exceedingly important to the social and economic development of the Nation and thus presents a challenge to the vocational educator to expand programs to meet its needs. It is also precisely this group to which the Vocational Education Amendments of 1968 refers in calling for greater concentration of resources.

It must be remembered that until the Vocational Education Amendments of 1968, vocational education was primarily a high school program as far as in-school youth were concerned. It is the post-secondary age group on which vocational education must have a stronger impact; it is this age group that is trying desperately to become established in the economic structure of the Nation.

One exception is California which ranks second to the top because the California law for post-secondary education of 1907 defined grades 13 and 14 as part of the secondary school system. Development of vocational education, since 1917, therefore occurred to a larger extent in grades 13 and 14 in California.

The causal factors related to the development of post-secondary education in the Nation should be investigated in detail by Project Baseline.

Adult enrollment in vocational education compared with total population in the 25-64 year age group. Since 1917 millions of Americans in the age group 25-64 have received benefits from vocational education, first for employed persons and later for unemployed persons.

Then, under the influence of the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968, the total needs of this age group came under the purview of vocational education -- employed, unemployed, underemployed, persons who need retraining and/or upgrading, and adults entering the labor force for the first time.

The extent to which vocational education serves this age group is a significant measure of success in the goal of serving persons of all ages in all communities.

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[1] Vermont is still lower, but there are known substantial unreported enrollments in that State.

The range in enrollment is from a high of 7.7 percent of the age group (North Carolina) to a low of 0.7 percent (Massachusetts and Wyoming). Little is known about the optimum percent of enrollment in vocational education for this age group to sustain an expanding economy. It is probable, however, that only the surface has been scratched.

TABLE 32A

Post-Secondary Enrollment in Vocational Education, as a Percent of the Total Population, 20-24 Years of Age, 1970-71

States	Total Population 20-24 Years of Age	Total Post-Secondary Education Enrollment	Total Post-Secondary Vocational Education Enrollment as a Percent of Total Population 20-24
U.S. TOTAL	16,790,573[1]	1,124,705[1]	6.6
Alabama	274,544	17,041	6.2
Alaska	35,576	806	2.3
Arizona	146,764	22,281	15.2
Arkansas	143,039	6,324	4.4
California	1,740,966	338,564	19.4
Colorado	204,508	14,274	7.0
Connecticut	229,794	6,674	2.9
Delaware	43,785	718	1.6
Dist. of C.	79,638	1,144	1.4
Florida	496,517	69,634	14.0
Georgia	416,949	14,814	3.6
Hawaii	81,555	7,052	8.6
Idaho	53,326	2,820	5.3
Illinois	843,644	62,186	7.4
Indiana	502,240	6,213	1.2
Iowa	203,691	13,584	6.7
Kansas	188,422	7,393	3.9
Kentucky	265,282	9,308	3.5
Louisiana	299,309	19,076	6.4
Maine	75,030	1,628	2.2
Maryland	325,455	12,758	3.9
Mass.	514,556	8,711	1.7
Michigan	702,742	42,632	6.1
Minnesota	292,037	20,122	6.9
Mississippi	173,332	8,268	4.8

[1] 1970 population figures not available for Guam, Puerto Rico, Virgin Islands, American Samoa, and Pacific Trust Territories, therefore they are not included. Total Voc. Ed. Enrollment will not match other tables due to this deletion.

TABLE 32A Cont'd

States	Total Population 20-24 Years of Age	Total Post-Secondary Education Enrollment	Total Post-Secondary Vocational Education Enrollment as a Percent of Total Population 20-24
Missouri	354,697	11,797	3.3
Montana	51,522	3,218	6.2
Nebraska	114,687	5,362	4.7
Nevada	39,075	1,936	5.0
New Hampshire	58,522	1,820	3.1
New Jersey	509,198	20,530	4.0
New Mexico	82,695	6,078	7.3
New York	1,382,376	58,965	4.3
N. Carolina	464,072	42,536	9.2
N. Dakota	64,769	4,117	6.4
Ohio	833,369	13,911	1.7
Oklahoma	207,450	5,322	2.6
Oregon	162,638	15,243	9.4
Pennsylvania	1,075,420	27,381	2.5
Rhode Isl.	87,963	1,081	1.2
S. Carolina	280,881	3,200	1.1
S. Dakota	48,646	1,806	3.7
Tennessee	321,177	16,346	5.1
Texas	958,507	41,912	4.4
Utah	97,859	12,294	12.6
Vermont	36,009	173	.5
Virginia	439,818	15,833	3.6
Washington	295,964	58,233	19.7
W. Virginia	128,653	2,014	1.6
Wisconsin	337,098	38,136	11.3
Wyoming	24,807	1,436	5.8
Guam			
Puerto Rico			
Virgin Isl.			
Am. Samoa			
Pac. Tr. Terr.			

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 32B

Rank Order of States by Post-Secondary Vocational Education Enrollment as a Percent of Total Population, 20-24 Years of Age, 1970-71

U.S. MEAN = 6.6

State	Percent	State	Percent
Washington	19.7	New Jersey	4.0
California	19.4	Kansas	3.9
Arizona	15.2	Maryland	3.9
Florida	14.0	South Dakota	3.7
Utah	12.6	Georgia	3.6
Wisconsin	11.3	Virginia	3.6
Oregon	9.4	Kentucky	3.5
North Carolina	9.2	Missouri	3.3
Hawaii	8.6	New Hampshire	3.1
Illinois	7.4	Connecticut	2.9
New Mexico	7.3	Oklahoma	2.6
Colorado	7.0	Pennsylvania	2.5
Minnesota	6.9	Alaska	2.3
Iowa	6.7	Maine	2.2
Louisiana	6.4	Massachusetts	1.7
North Dakota	6.4	Ohio	1.7
Alabama	6.2	Delaware	1.6
Montana	6.2	West Virginia	1.6
Michigan	6.1	Dist. of Columbia	1.4
Wyoming	5.8	Indiana	1.2
Idaho	5.3	Rhode Island	1.2
Tennessee	5.1	South Carolina	1.1
Nevada	5.0	Vermont	.5
Mississippi	4.8		
Nebraska	4.7		
Arkansas	4.4		
Texas	4.4		
New York	4.3		

TABLE 33A

Vocational Education Adult Enrollment as a Percent of Total Population, 25-64 Years of Age, 1970-71

States	Total Population 25-64 Years of Age	Total Adult Vocational Education Enrollment	Adult Vocational Education Enrollment as a Percent of Total Population 25-64
U.S. TOTAL	91,557,773[1]	2,818,764[1]	3.1
Alabama	1,480,851	41,118	2.8
Alaska	128,119	3,847	3.0
Arizona	755,045	15,880	2.1
Arkansas	819,464	43,587	5.3
California	9,669,329	325,573	3.4
Colorado	953,191	35,037	3.7
Connecticut	1,395,515	28,829	2.1
Delaware	243,772	3,054	1.3
Dist. of C.	352,079	4,183	1.2
Florida	3,050,727	167,437	5.5
Georgia	1,989,653	83,244	4.2
Hawaii	340,588	8,600	2.5
Idaho	301,102	5,706	1.9
Illinois	4,995,386	46,775	0.9
Indiana	2,252,293	38,646	1.7
Iowa	1,163,164	64,116	5.5
Kansas	959,765	47,290	4.9
Kentucky	1,375,506	48,144	3.5
Louisiana	1,502,843	29,046	1.9
Maine	423,084	5,338	1.3
Maryland	1,782,436	28,348	1.6
Mass.	2,506,201	17,828	0.7
Michigan	3,839,216	113,189	2.9
Minnesota	1,581,183	94,126	6.0
Mississippi	888,484	38,771	4.4

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[1] 1970 population figures are not available for Guam, Puerto Rico, Virgin Islands, American Samoa, and Pacific Trust Territories, therefore they are not included. Total Voc. Ed. Enrollment will not match other tables due to this deletion.

TABLE 33A Cont'd

States	Total Population 25-64 Years of Age	Total Adult Vocational Education Enrollment	Adult Vocational Education Enrollment as a Percent of Total Population 25-64
Missouri	2,041,068	33,288	1.6
Montana	292,875	7,403	2.5
Nebraska	621,686	21,620	3.5
Nevada	234,454	3,578	1.5
New Hampshire	319,207	2,884	0.9
New Jersey	3,357,863	90,510	2.7
New Mexico	418,835	7,795	1.9
New York	8,453,238	165,146	2.0
N. Carolina	2,231,690	172,584	7.7
N. Dakota	300,732	5,628	1.9
Ohio	4,701,444	193,196	4.1
Oklahoma	1,121,977	38,045	3.4
Oregon	928,897	30,825	3.3
Pennsylvania	6,268,857	125,835	2.0
Rhode Island	418,952	5,263	1.3
S. Carolina	1,330,966	19,761	1.5
S. Dakota	268,990	5,276	2.0
Tennessee	1,713,850	31,754	1.9
Texas	4,824,944	229,213	4.8
Utah	413,697	17,558	4.2
Vermont	185,221	2,819	1.5
Virginia	2,078,450	97,397	4.7
Washington	1,503,510	56,204	3.7
W. Virginia	774,966	24,024	3.1
Wisconsin	1,857,026	92,484	5.0
Wyoming	145,382	962	0.7
Guam			
Puerto Rico			
Virgin Isl.			
Am. Samoa			
Pac. Tr. Terr.			

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 33B

Rank Order of States by Adult Vocational Education as a Percent of Total Population, 25-64 Years of Age, 1970-71

U.S. MEAN = 3.1

State	Percent	State	Percent
North Carolina	7.7	Connecticut	2.1
Minnesota	6.0	New York	2.0
Florida	5.5	Pennsylvania	2.0
Iowa	5.5	South Dakota	2.0
Arkansas	5.3	Tennessee	1.9
Wisconsin	5.0	Idaho	1.9
Kansas	4.9	Louisiana	1.9
Texas	4.8	New Mexico	1.9
Virginia	4.7	North Dakota	1.9
Mississippi	4.4	Indiana	1.7
Georgia	4.2	Maryland	1.6
Utah	4.2	Missouri	1.6
Ohio	4.1	Nevada	1.5
Colorado	3.7	South Datolina	1.5
Washington	3.7	Vermont	1.5
Kentucky	3.5	Delaware	1.3
Nebraska	3.5	Maine	1.3
California	3.4	Rhode Island	1.3
Oklahoma	3.4	Dist. of Columbia	1.2
Oregon	3.3	Illinois	.9
West Virginia	3.1	New Hampshire	.9
Alaksa	3.0	Massachusetts	.7
Michigan	2.9	Wyoming	.7
Alabama	2.8		
New Jersey	2.7		
Hawaii	2.5		
Montana	2.5		
Arizona	2.1		

Chapter V

OCCUPATIONAL DISTRIBUTION OF VOCATIONAL EDUCATION AND MANPOWER TRAINING

Ideally all students and trainees should have an opportunity to select the occupational areas in which they are most interested and for which they have the best qualifications for existing employment opportunities. This would require a great variety of programs complete with facilities, equipment, and instructors in every institution. The ideal is not possible, so public policy and management decisions constantly revolve around questions of where to locate what programs. The influences and reasoning behind the present distribution of training opportunities undoubtedly vary from State to State and from institution to institution; this and subsequent reports of Project Baseline will attempt to identify some of these determining factors.

In any compromise situation such as the location of limited facilities and programs, there may be strong objections and perhaps equally strong support. The resulting concentrations and gaps in particular occupational training opportunities are in some respects a measure of the wisdom and judgement in the decisions that have been made. One purpose of this chapter is to examine the distribution of programs nationally and in each State for the base year 1970-71 from the perspective of over-all public policy. Hasty criticism from particular points of view should be avoided, but concentrations and gaps in occupational distribution of all Federally reported programs merit careful review. They may reflect overlapping of programs and resources, obsolesence in over-all program management, or questionable priorities in expansion of old programs and establishment of new ones.

That said, it is necessary to add that only a very limited review is possible at this time because of problems with the data. There are 335 different occupational areas of training identified by code in the vocational education programs administered by the U.S. Office of Education, and approximately 662 in the manpower and apprenticeship programs administered by the Manpower Administration of the U.S. Department of Labor.[1] These two Federal agencies have coordinated their individual occupational codes so that detailed compilations are no problem, but the large number of occupations identified separately makes summary compilations and analyses quite difficult. Since no satisfactory consolidation of the six or seven hundred different training occupations has yet been developed, Project Baseline is using with some reluctance the USOE's eight classifications for vocational education and converting manpower and apprenticeship data to these.

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[1] Depending on the level of refinement the number of occupations can be as high as 22,000, the number defined in the Dictionary of Occupational Titles. The number referred to here as U.S. Office of Education occupations, 335, is the number of codes printed on Federal report form 3138. The number referred to as U.S. Department of Labor occupations, 662, is the number of 3-digit codes found in the USDL printouts of 1970-71 enrollments in occupationally reported training programs.

The eight classifications are largely historical, rather than based on employment or training relationships. Thus cosmetology and welding are both classified as trade and industry occupations, and engineering and police science are both classified as technical education. It is in these two classifications -- trade and industrial occupations, and technical education, both entirely too broad -- where satisfactory compilations and analyses of data break down. A large number of manpower and apprenticeship programs, for example, fall into trade and industrial, making it impossible to identify them as separate occupations. It would be an important step forward in data analysis for management purposes if the USOE and the Bureau of Labor Statistics (BLS) would develop jointly a classification schedule according to employment requisites and educational levels needed and limited to ten to fifteen major occupational divisions.[1]

When this is accomplished, one of the most serious obstacles in the use of these data will have been removed. It is pointless, for example, to relate vocational education and manpower training to employment demand in a single classification as broad as trade and industrial occupations. It is almost equally futile to do so on the basis of over 600 classifications. Such relationships are being made, and they must be made, but only through the adoption of a workable classification system. Such a system was developed in this study, then rejected because it did not fit any other system and therefore had little value beyond its use in this report. It was decided to use the U.S. Office of Education's eight category system because it is widely known and therefore meaningful to most educators and administrators. All but two of the eight categories, moreover, are rather well defined, i.e. agriculture, distributive education, health occupations, consumer and homemaking, occupational home economics, and office occupations.

Vocational Education

A summary of total vocational education enrollments in all occupational categories containing numbers of programs and enrollments is contained in the following section. The relative strength of each category nationally and within each State is presented in the tables.

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[1] An attempt to reconcile the USOE and BLS codes through a cluster approach is currently under way. According to information received by Project Baseline, USOE wants fifteen clusters, while BLS feels there should be seventeen. Presumably when that question is resolved, a satisfactory classification system will have been established which Project Baseline and all other reporting compilations and analyses may utilize.

Nationally the heaviest concentration of vocational education is in the non-occupationally related program long known as home economics, but now called consumer and homemaking. More than one-fourth of all students enrolled in vocational education programs (26.8 percent) were in consumer and homemaking courses in 1970-71. This is not necessarily a questionable situation; while not directly related to preparation for income-producing employment, consumer and homemaking may very well have the highest percent of its students being prepared for the career they actually go into of any program in vocational education. It must also be kept constantly in mind that two categories of vocational education, office occupations and trade and industrial occupations, are significantly under-reported, and this is probably not true of consumer and homemaking.

Next to consumer and homemaking, office occupations had the highest reported enrollment (24.2 percent of the total), followed by trade and industrial occupations (22.5 percent). They would probably rank substantially higher if complete data were available. All other programs were much smaller by comparison: agriculture (8.9 percent), distributive education (6.3 percent), technical education (3.4 percent), health occupation education (2.9 percent), and occupational home economics (2.1 percent).

Most individual States are fairly close to these national percentages except for agriculture and office occupations, and to some extent technical education. Agriculture ranges from more than twenty percent in Alabama, Arkansas, Iowa, Mississippi, Oklahoma, South Carolina, South Dakota, and Texas to less than two percent in Alaska, Connecticut, the District of Columbia, Massachusetts, New Jersey, and New York. The range is even greater in office occupations, from more than fifty percent in Massachusetts and Delaware to less than ten percent in Rhode Island, Mississippi, Texas, Arkansas, Iowa, South Dakota, North Carolina, Oklahoma, District of Columbia, Alabama, and Vermont. The enrollment in technical education consists of less than one percent of the total in six States: Arkansas, District of Columbia, Kansas, Utah, Indiana, Kentucky, and Nebraska; and of more than ten percent of the total enrollment in Alaska, Nevada, and Connecticut.

Enrollment in agriculture compared with total vocational education enrollment. The relative emphasis given to agriculture is greatest in the Southern, Great Plains, Midwestern and Northern Rocky Mountain States. Illinois and Michigan are exceptions, reflecting no doubt the heavy concentration of urban populations in these States. Other States with relatively light vocational agriculture programs are on the West Coast and in the far Southwest and the Northeast, and Alaska has none. The rank order of States by percent of vocational education enrollments in agriculture, Table 34B, indicates no sharp divisions, but rather a complete range from Alaska's zero to nearly thirty percent of all vocational education in Alabama.

TABLE 34A

Vocational Education Enrollment in Agriculture Education as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Agriculture Education Enrollment	Total Agriculture Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844[1]	819,880	8.9
Alabama	147,220	43,551	29.6
Alaska	13,147	0	0.0
Arizona	88,471	3,825	4.3
Arkansas	103,907	20,968	20.2
California	1,204,611	48,390	4.0
Colorado	95,309	3,853	4.0
Connecticut	113,694	1,890	1.7
Delaware	31,211	1,244	4.0
Dist. of C.	11,008	123	1.1
Florida	438,087	20,215	4.6
Georgia	255,887	36,706	14.3
Hawaii	38,692	2,700	7.0
Idaho	30,370	4,736	15.6
Illinois	541,178	24,292	4.5
Indiana	131,338	20,783	15.8
Iowa	127,911	29,060	22.7
Kansas	93,151	9,209	8.9
Kentucky	145,324	19,316	13.3
Louisiana	174,373	19,962	11.4
Maine	23,424	894	3.8
Maryland	141,774	2,951	2.0
Massachusetts	121,950	983	.8
Michigan	320,055	14,435	4.5
Minnesota	219,085	31,917	14.6
Mississippi	101,768	22,237	21.9

[1] Totals shown in this column are the sum of totals shown in each occupational area (including Special Programs for which no table is included) and therefore will not neccessarily match State enrollment totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 34A Cont'd

States	Total Vocational Education Enrollment	Total Agriculture Education Enrollment	Total Agriculture Enrollment as a Percent of Total Vocational Education Enrollment
Missouri	143,632	17,015	11.8
Montana	27,328	3,589	13.1
Nebraska	65,318	7,537	11.5
Nevada	18,110	870	4.8
New Hamp.	23,082	1,239	5.4
New Jersey	292,516	2,205	.8
New Mexico	49,178	4,226	8.6
New York	669,717	10,996	1.6
N. Carolina	376,817	31,061	8.2
N. Dakota	26,215	4,987	19.0
Ohio	389,044	29,674	7.6
Oklahoma	109,658	23,845	21.7
Oregon	101,090	4,193	4.1
Penn.	337,835	14,352	4.2
Rhode Isl.	18,370	1,160	6.3
S. Carolina	93,616	22,891	24.5
S. Dakota	21,413	4,652	21.7
Tennessee	144,866	22,342	15.4
Texas	577,695	146,988	25.4
Utah	94,983	6,913	7.3
Vermont	12,593	1,304	10.4
Virginia	243,000	20,604	8.5
Washington	226,118	15,868	7.0
W. Virginia	59,199	4,563	7.7
Wisconsin	193,246	25,408	13.1
Wyoming	14,249	1,937	13.6
Guam	2,817	0	0.0
Puerto Rico	109,809	4,641	4.2
Virgin Isl.	1,769	83	4.7
Am. Samoa	1,702	56	3.3
Pac. Tr. Terr.	2,914	441	15.1

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 34B

Rank Order of States by Agriculture Education as a Percent of Total Vocational Education Enrollment, 1970-71

U.S. MEAN = 8.9

State	Percent	State	Percent
Alabama	29.6	Ohio	7.6
Texas	25.4	Hawaii	7.0
South Carolina	24.5	Washington	7.0
Iowa	22.7	Utah	7.3
Mississippi	21.9	Rhode Island	6.3
Oklahoma	21.7	New Hampshire	5.4
South Dakota	21.7	Nevada	4.8
Arkansas	20.2	Virgin Islands	4.7
North Dakota	19.0	Florida	4.6
Indiana	15.8	Illinois	4.5
Idaho	15.6	Michigan	4.5
Tennessee	15.4	Arizona	4.3
Pacific Tr. Terr.	15.1	Pennsylvania	4.2
Minnesota	14.6	Puerto Rico	4.2
Georgia	14.3	Oregon	4.1
Wyoming	13.6	California	4.0
Kentucky	13.3	Colorado	4.0
Montana	13.1	Delaware	4.0
Wisconsin	13.1	Maine	3.8
Missouri	11.8	American Samoa	3.3
Nebraska	11.5	Maryland	2.0
Louisiana	11.4	Connecticut	1.7
Vermont	10.4	New York	1.6
Kansas	8.9	Dist. of Columbia	1.1
New Mexico	8.6	Massachusetts	.8
Virginia	8.5	New Jersey	.8
North Carolina	8.2	Alaska	0.0
West Virginia	7.7	Guam	0.0

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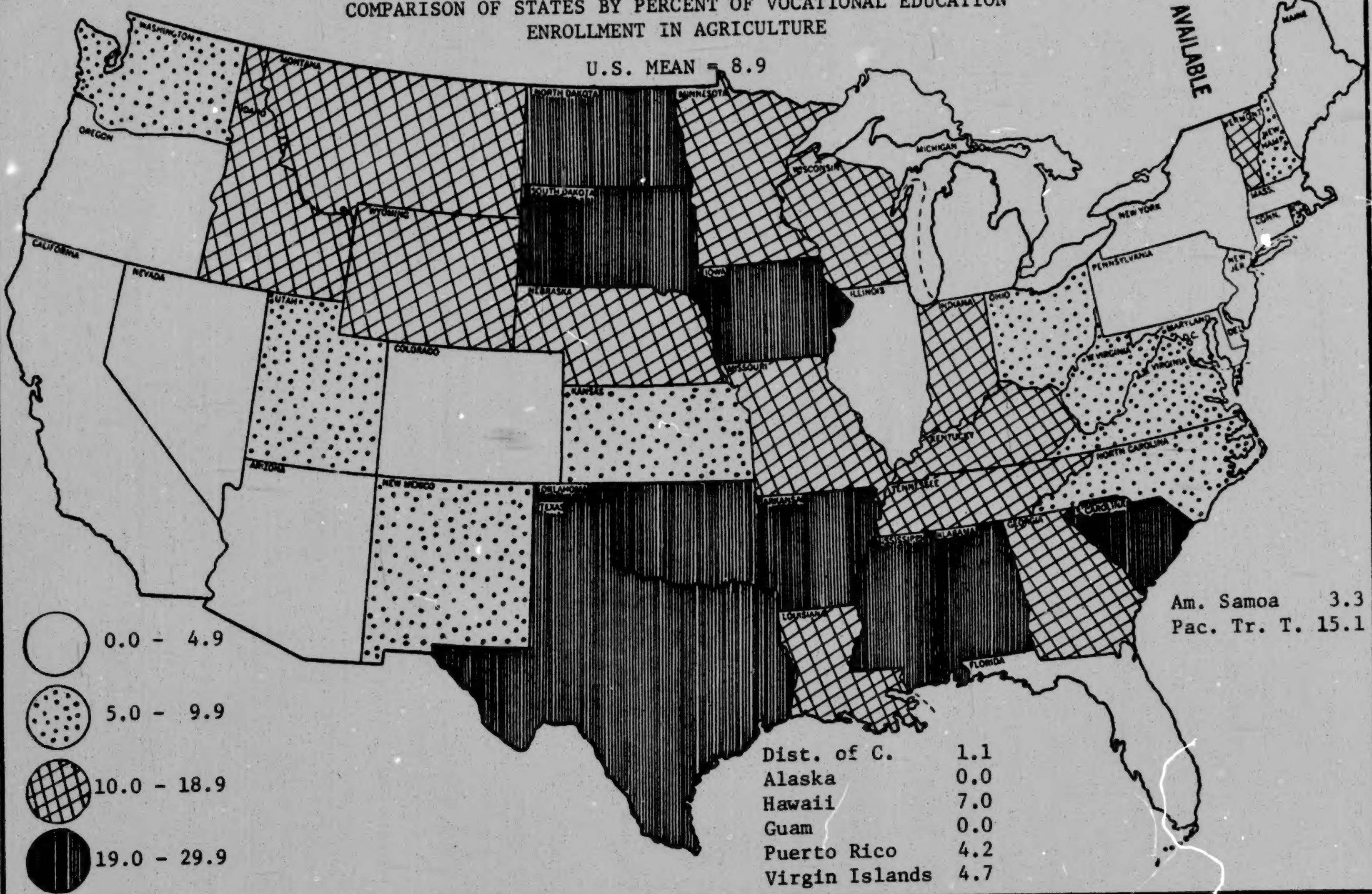
FIGURE 3

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION ENROLLMENT IN AGRICULTURE

U.S. MEAN = 8.9


○ 0.0 - 4.9
░ 5.0 - 9.9
▨ 10.0 - 18.9
● 19.0 - 29.9
WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
S. CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
MARYLAND
D.C.
DEL.
NEW JER.
PENNSYLVANIA
NEW YORK
CONN.
MASS.
VERMONT
NEW HAMP.
MAINE

Dist. of C.	1.1
Alaska	0.0
Hawaii	7.0
Guam	0.0
Puerto Rico	4.2
Virgin Islands	4.7

Am. Samoa	3.3
Pac. Tr. T.	15.1

Enrollment in distributive education compared with total vocational education enrollment. The concentration of enrollment in distributive education, which is basically sales and merchandising, is relatively even throughout the United States, ranging from 1.2 and 1.3 percent in New Hampshire and West Virginia to 17.9 in Virginia. Looking at the map in Figure 4, no real patterns are evident except a somewhat higher concentration in the West and Northwest than in most other parts of the country. Quite possibly the variations that do exist reflect policy decisions within States and local efforts to develop programs in this field. For example, Ohio had 10.1 percent of its total vocational education enrollment in distributive education, while States on either side of it, Indiana and Pennsylvania, had only 3.8 and 3.4 percent respectively.

Enrollment in health occupations compared with total vocational education enrollment. The percent of vocational education enrollment in health occupations is too low in any of the States to assume that differences from one State to another reflect significant causal factors, and no geographic patterns are evident. States with relatively low enrollments are found in every region except the far West, and States with relatively higher enrollments are equally widely scattered. There would appear to be a very slight pattern in the Deep South where the relative enrollments are generally lower in health occupations than other parts of the country.

This is, of course, an occupational field long dominated by private institutions and on-the-job training. Public training programs have come into existence largely through the development of post-secondary institutions, especially community colleges, in the past decade. Secondary school programs and adult programs in manpower have been established to a significant extent as a result of two parallel needs: The need of health care institutions for greatly increasing numbers of aides and practical nurses, and the need for employment by equally increasing numbers of persons whose only opportunities for training are through public programs of this kind. It will be interesting and possibly significant to examine the geographic distribution of health occupations enrollments in vocational education each year as these programs expand. This is a field that will almost certainly show a high degree of expansion in the future.

Enrollment in consumer and homemaking compared with total vocational education enrollment. National variations in consumer and homemaking have been noted earlier in this chapter, but the map in Figure 6 presents a more graphic review of the situation. Since consumer and homemaking is a long-established program in every State, and since the variations in relative emphasis in this field are fairly broad (3.9 percent in Massachusetts to 46.3 percent in Rhode Island) policy decisions within the States are almost certainly reflected. Those two extremes side by side in New England, for example, suggest that in one case considerable effort may have been made to strengthen the occupationally oriented programs in vocational education including occupational home economics, and in the other case either this was not done or a corresponding effort was made to maintain a reasonably strong home-oriented program.

TABLE 35A

Vocational Education Enrollment in Distributive Education as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Distributive Education Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844[1]	574,551	6.3
Alabama	147,220	5,405	3.7
Alaska	13,147	1,990	15.1
Arizona	88,471	9,340	10.6
Arkansas	103,907	6,456	6.2
California	1,204,611	67,231	5.6
Colorado	95,309	8,490	8.9
Connecticut	113,694	3,549	3.1
Delaware	31,211	1,912	6.1
Dist. of C.	11,008	759	6.9
Florida	438,087	38,750	8.8
Georgia	255,887	14,646	5.7
Hawaii	38,692	1,557	4.0
Idaho	30,370	1,069	3.5
Illinois	541,178	23,456	4.3
Indiana	131,338	5,005	3.8
Iowa	127,911	4,809	3.8
Kansas	93,151	8,841	9.5
Kentucky	145,324	9,713	6.7
Louisiana	174,373	9,304	5.3
Maine	23,424	823	3.5
Maryland	141,774	4,439	3.1
Massachusetts	121,950	3,984	3.3
Michigan	320,055	34,405	10.7
Minnesota	219,085	14,752	6.7
Mississippi	101,768	4,791	4.7

[1] Totals shown in this column are the sum of totals shown in each occupational area and therefore will not necessarily match State enrollment Totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 35A Cont'd

States	Total Vocational Education Enrollment	Total Distributive Education Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	11,460	8.0
Montana	27,328	1,489	5.4
Nebraska	65,318	4,391	6.7
Nevada	18,110	635	3.5
New Hamp.	23,082	285	1.2
New Jersey	292,516	14,100	3.7
New Mexico	49,178	1,765	3.6
New York	669,717	37,377	5.6
N. Carolina	376,817	16,661	4.4
N. Dakota	26,215	940	3.6
Ohio	389,044	39,120	10.1
Oklahoma	109,658	5,040	4.6
Oregon	101,090	5,685	5.6
Penn.	337,835	11,454	3.4
Rhode Isl.	18,370	859	4.7
S. Carolina	93,616	3,983	4.3
S. Dakota	21,413	1,073	5.0
Tennessee	144,866	10,011	7.0
Texas	577,695	39,707	6.9
Utah	94,983	6,544	6.9
Vermont	12,593	519	4.1
Virginia	243,000	43,580	17.9
Washington	226,118	11,039	4.9
W. Virginia	59,199	767	1.3
Wisconsin	193,246	9,417	4.9
Wyoming	14,249	802	5.6
Guam	2,817	0	0.0
Puerto Rico	109,809	10,363	14.6
Virgin Is.	1,769	9	.5
Am. Samoa	1,702	0	0.0
Pac. Tr. Terr.	2,914	0	0.0

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.

TABLE 35B

Rank Order of States by Distributive Education as a Percent of Total Vocational Education Enrollment, 1970-71

U.S. MEAN = 6.3

State	Percent	State	Percent
Virginia	17.9	Wisconsin	4.9
Alaska	15.1	Mississippi	4.7
Puerto Rico	14.6	Rhode Island	4.7
Michigan	10.7	Oklahoma	4.6
Arizona	10.6	North Carolina	4.4
Ohio	10.1	Illinois	4.3
Kansas	9.5	South Carolina	4.3
Colorado	8.9	Vermont	4.1
Florida	8.8	Hawaii	4.0
Missouri	8.0	Indiana	3.8
Tennessee	7.0	Iowa	3.8
Dist. of Columbia	6.9	Alabama	3.7
Texas	6.9	New Jersey	3.7
Utah	6.9	New Mexico	3.6
Kentucky	6.7	North Dakota	3.6
Minnesota	6.7	Idaho	3.5
Nebraska	6.7	Maine	3.5
Arkansas	6.2	Nevada	3.5
Delaware	6.1	Pennsylvania	3.4
Georgia	5.7	Massachusetts	3.3
California	5.6	Connecticut	3.1
New York	5.6	Maryland	3.1
Oregon	5.6	West Virginia	1.3
Wyoming	5.6	New Hampshire	1.2
Montana	5.4	Virgin Islands	.5
Louisiana	5.3	Guam	0.0
South Dakota	5.0	Am. Samoa	0.0
Washington	4.9	Pacific Tr. Territories	0.0

FIGURE 4

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION ENROLLMENT IN DISTRIBUTIVE EDUCATION, 1970-71

U.S. MEAN = 6.3

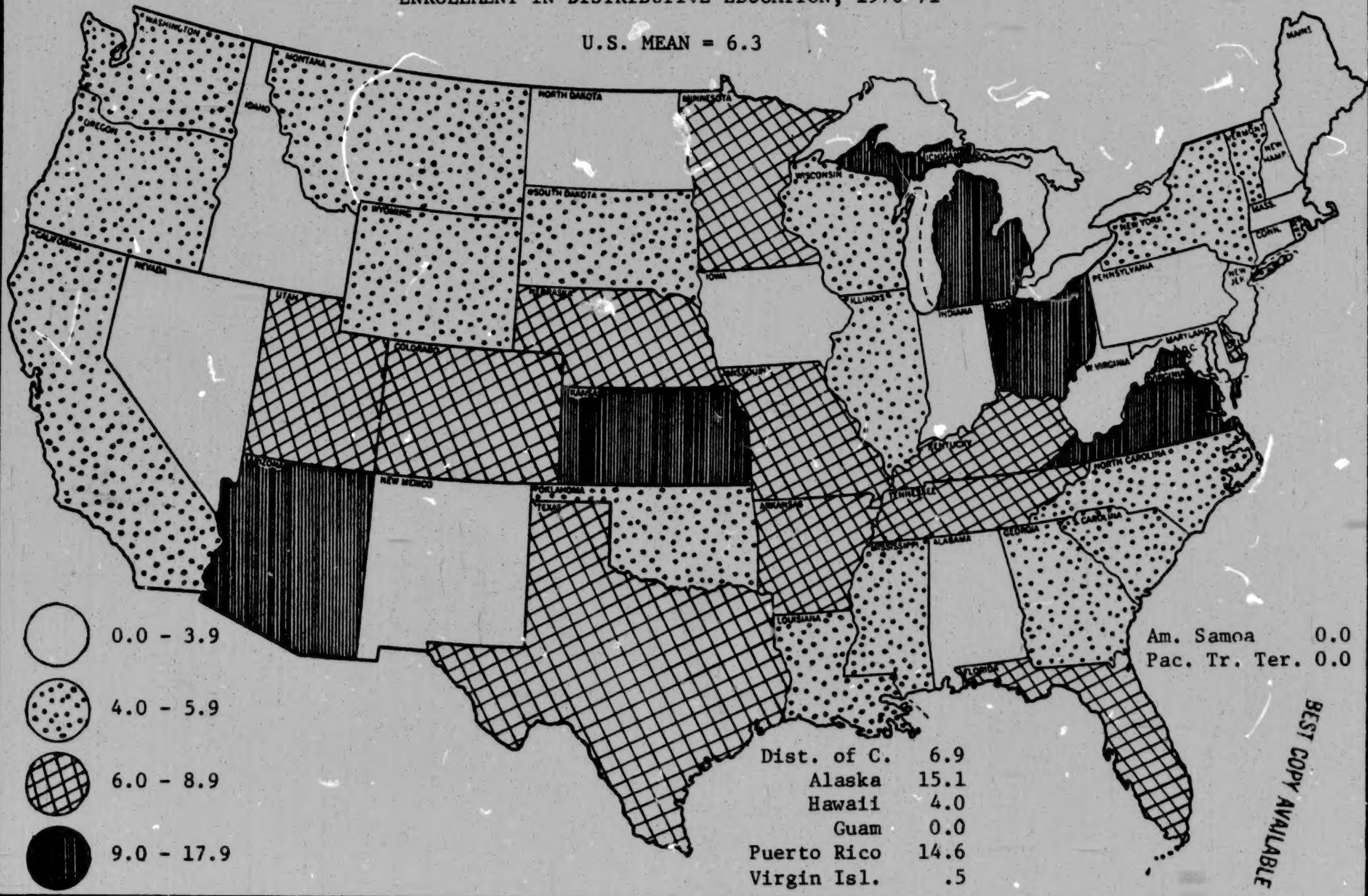

WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
S. CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
MARYLAND
D.C.
PENNSYLVANIA
NEW YORK
NEW JER.
CONN.
MASS.
VERMONT
NEW HAMP.
MAINE
0.0 - 3.9
4.0 - 5.9
6.0 - 8.9
9.0 - 17.9
Dist. of C. 6.9
Alaska 15.1
Hawaii 4.0
Guam 0.0
Puerto Rico 14.6
Virgin Isl. .5
Am. Samoa 0.0
Pac. Tr. Ter. 0.0

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TABLE 36A

Vocational Education Enrollment in Health Occupations as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Health Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844 [1]	268,963	2.9
Alabama	147,220	2,975	2.0
Alaska	13,147	128	1.0
Arizona	88,471	3,629	4.1
Arkansas	103,907	1,981	1.9
California	1,204,611	37,226	3.1
Colorado	95,309	3,873	4.1
Connecticut	113,694	1,954	1.7
Delaware	31,211	467	1.5
Dist. of C.	11,008	727	6.6
Florida	438,087	14,392	1.9
Georgia	255,887	5,079	2.0
Hawaii	38,692	475	1.2
Idaho	30,370	711	2.3
Illinois	541,178	11,438	2.1
Indiana	131,338	2,644	2.0
Iowa	127,911	8,226	6.4
Kansas	93,151	1,298	1.4
Kentucky	145,324	2,508	1.7
Louisiana	174,373	3,378	1.9
Maine	23,424	922	3.9
Maryland	141,774	2,312	1.6
Massachusetts	121,950	3,046	2.5
Michigan	320,055	10,063	3.1
Minnesota	219,085	4,191	1.9
Mississippi	101,768	2,046	2.0

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[1] Totals shown in this column are the sum of totals shown in each occupational area and therefore will not necessarily match State enrollment totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 36A Cont'd

States	Total Vocational Education Enrollment	Total Health Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	5,269	3.7
Montana	27,328	582	2.1
Nebraska	65,318	2,475	3.8
Nevada	18,110	719	8.9
New Hamp.	23,082	517	2.2
New Jersey	292,516	6,095	2.8
New Mexico	49,178	1,075	2.2
New York	669,717	34,287	5.1
N. Carolina	376,817	20,563	5.5
N. Dakota	26,215	958	3.7
Ohio	389,044	8,582	2.2
Oklahoma	109,658	2,958	2.7
Oregon	101,090	2,872	2.8
Penn.	337,835	9,723	2.9
Rhode Isl.	18,370	950	5.2
S. Carolina	93,616	1,440	1.5
S. Dakota	21,413	372	1.7
Tennessee	144,866	3,931	2.7
Texas	577,695	14,721	2.5
Utah	94,983	1,830	1.9
Vermont	12,593	249	2.0
Virginia	243,000	3,961	1.6
Washington	226,118	7,672	3.4
W. Virginia	59,199	1,079	1.8
Wisconsin	193,246	8,625	4.5
Wyoming	14,249	178	1.2
Guam	2,817	0	0.0
Puerto Rico	109,809	1,540	1.4
Virgin Isl.	1,769	11	.6
Am. Samoa	1,702	14	.8
Pac. Tr. Terr.	2,914	26	.9

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.

TABLE 36B

Rank Order of States by Health Occupations as a Percent of Total Vocational Education Enrollment, 1970-71

U.S. MEAN = 2.9

State	Percent	State	Percent
Nevada	8.9	Montana	2.1
Dist. of Columbia	6.6	Alabama	2.0
Iowa	6.4	Georgia	2.0
North Carolina	5.5	Indiana	2.0
Rhode Island	5.2	Mississippi	2.0
New York	5.1	Vermont	2.0
Wisconsin	4.5	Arkansas	1.9
Arizona	4.1	Florida	1.9
Colorado	4.1	Louisiana	1.9
Maine	3.9	Minnesota	1.9
Nebraska	3.8	Utah	1.9
Missouri	3.7	West Virginia	1.8
North Dakota	3.7	Connecticut	1.7
Washington	3.4	Kentucky	1.7
California	3.1	South Dakota	1.7
Michigan	3.1	Maryland	1.6
Pennsylvania	2.9	Virginia	1.6
New Jersey	2.8	Delaware	1.5
Oregon	2.8	South Carolina	1.5
Oklahoma	2.7	Kansas	1.4
Tennessee	2.7	Puerto Rico	1.4
Massachusetts	2.5	Hawaii	1.2
Texas	2.5	Wyoming	1.2
Idaho	2.3	Alaska	1.0
New Hampshire	2.2	Pacific Tr. Territories	.9
New Mexico	2.2	American Samoa	.8
Ohio	2.2	Virgin Islands	.6
Illinois	2.1	Guam	0.0

FIGURE 5

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION ENROLLMENT IN HEALTH OCCUPATIONS, 1970-71

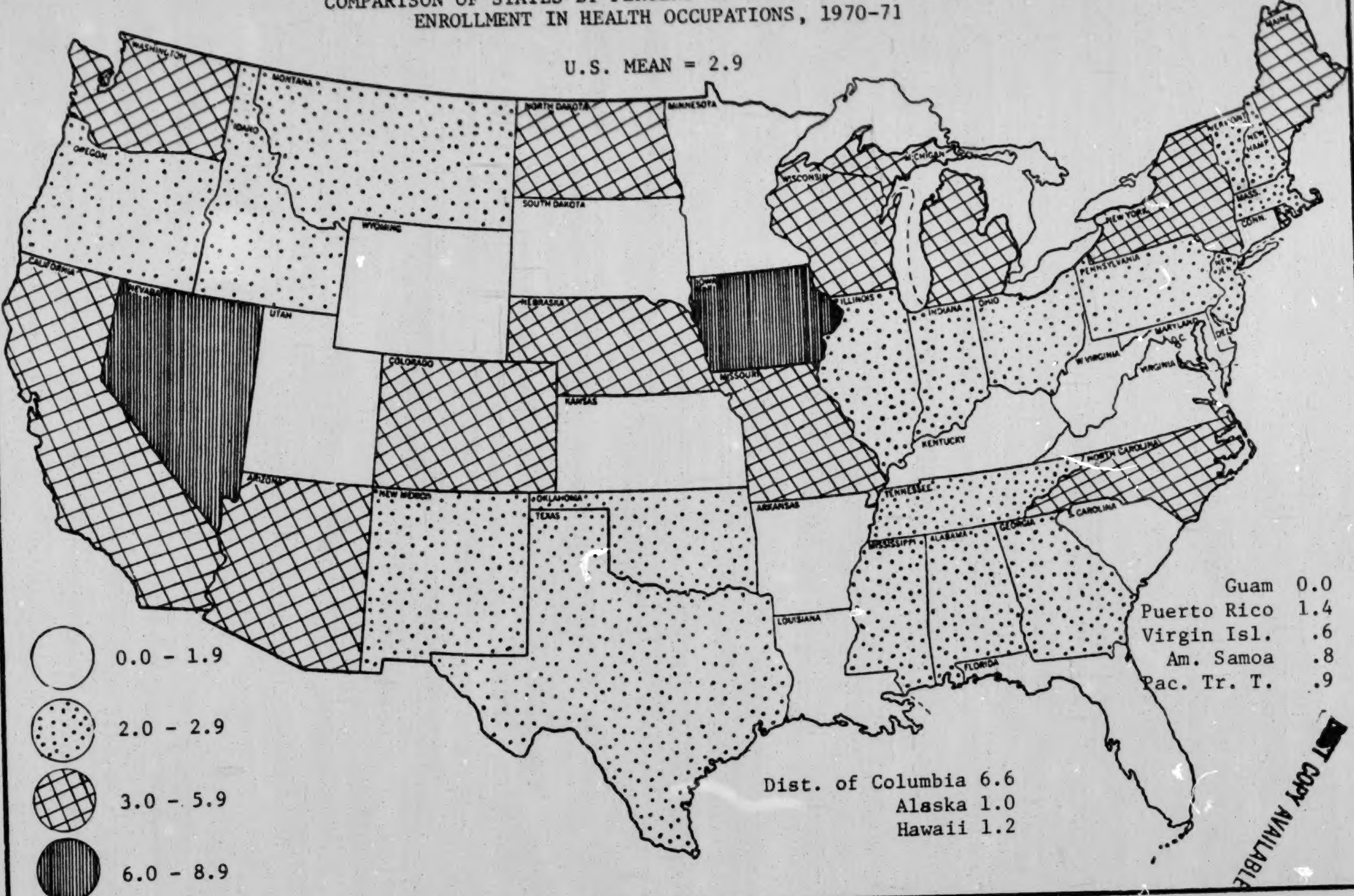
U.S. MEAN = 2.9
WASHINGTON
OREGON
CALIFORNIA
IDAHO
NEVADA
MONTANA
UTAH
ARIZONA
WYOMING
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
S. CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
MARYLAND
D.C.
DEL.
PENNSYLVANIA
NEW JER.
NEW YORK
CONN.
MASS.
VERMONT
NEW HAMP.
MAINE
○ 0.0 - 1.9
▒ 2.0 - 2.9
▦ 3.0 - 5.9
▥ 6.0 - 8.9
Guam 0.0
Puerto Rico 1.4
Virgin Isl. .6
Am. Samoa .8
Pac. Tr. T. .9
Dist. of Columbia 6.6
Alaska 1.0
Hawaii 1.2

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TABLE 37A

Vocational Education Enrollment in Consumer and Homemaking as a Percent of Total Vocational Education Enrollment, 1970-71.

States	Total Vocational Education Enrollment	Total Consumer & Homemaking Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844 [1]	2,450,681	26.8
Alabama	147,220	38,171	25.9
Alaska	13,147	2,037	15.5
Arizona	88,471	30,878	34.9
Arkansas	103,907	36,364	35.0
California	1,204,611	200,112	16.6
Colorado	95,309	33,026	34.6
Connecticut	113,694	19,821	17.4
Delaware	31,211	5,261	16.9
Dist. of C.	11,008	2,446	22.2
Florida	438,087	147,621	33.7
Georgia	255,887	65,599	25.6
Hawaii	38,692	12,991	33.6
Idaho	30,370	12,058	39.7
Illinois	541,178	31,734	5.9
Indiana	131,338	49,535	37.7
Iowa	127,911	39,691	31.0
Kansas	93,151	21,509	23.1
Kentucky	145,324	49,539	34.1
Louisiana	174,373	53,159	30.5
Maine	23,424	2,429	10.4
Maryland	141,774	39,935	28.2
Massachusetts	121,950	4,727	3.9
Michigan	320,055	82,658	25.8
Minnesota	219,085	69,301	31.6
Mississippi	101,768	30,522	30.0

[1] Totals shown in this column are the sum of totals shown in each occupational area and therefore will not necessarily match State enrollment totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 37A Cont'd

States	Total Vocational Education Enrollment	Total Consumer & Homemaking Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	58,132	40.5
Montana	27,328	8,777	32.1
Nebraska	65,318	26,563	40.7
Nevada	18,110	3,526	19.5
New Hamp.	23,082	6,331	27.4
New Jersey	292,516	86,226	24.8
New Mexico	49,178	15,131	30.8
New York	669,717	196,100	29.3
N. Carolina	376,817	107,685	28.6
N. Dakota	26,215	10,146	38.7
Ohio	389,044	136,173	35.0
Oklahoma	109,658	34,074	31.1
Oregon	101,090	39,594	39.2
Penn.	337,835	52,288	15.4
Rhode Isl.	18,370	8,500	46.3
S. Carolina	93,616	29,606	31.6
S. Dakota	21,413	9,000	42.0
Tennessee	144,866	47,979	33.1
Texas	577,695	229,357	39.7
Utah	94,983	24,834	26.1
Vermont	12,593	4,579	36.4
Virginia	243,000	44,734	18.4
Washington	226,118	74,486	32.9
W. Virginia	59,199	20,158	34.1
Wisconsin	193,246	41,142	21.3
Wyoming	14,249	3,818	26.8
Guam	2,817	72	2.6
Puerto Rico	109,809	49,218	44.8
Virgin Isl.	1,769	0	0.0
Am. Samoa	1,702	279	16.4
Pac. Tr. Terr.	2,914	1,049	35.9

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 37B

Rank Order of States by Consumer and Homemaking as a Percent of Total Vocational Education Enrollment, 1970-71

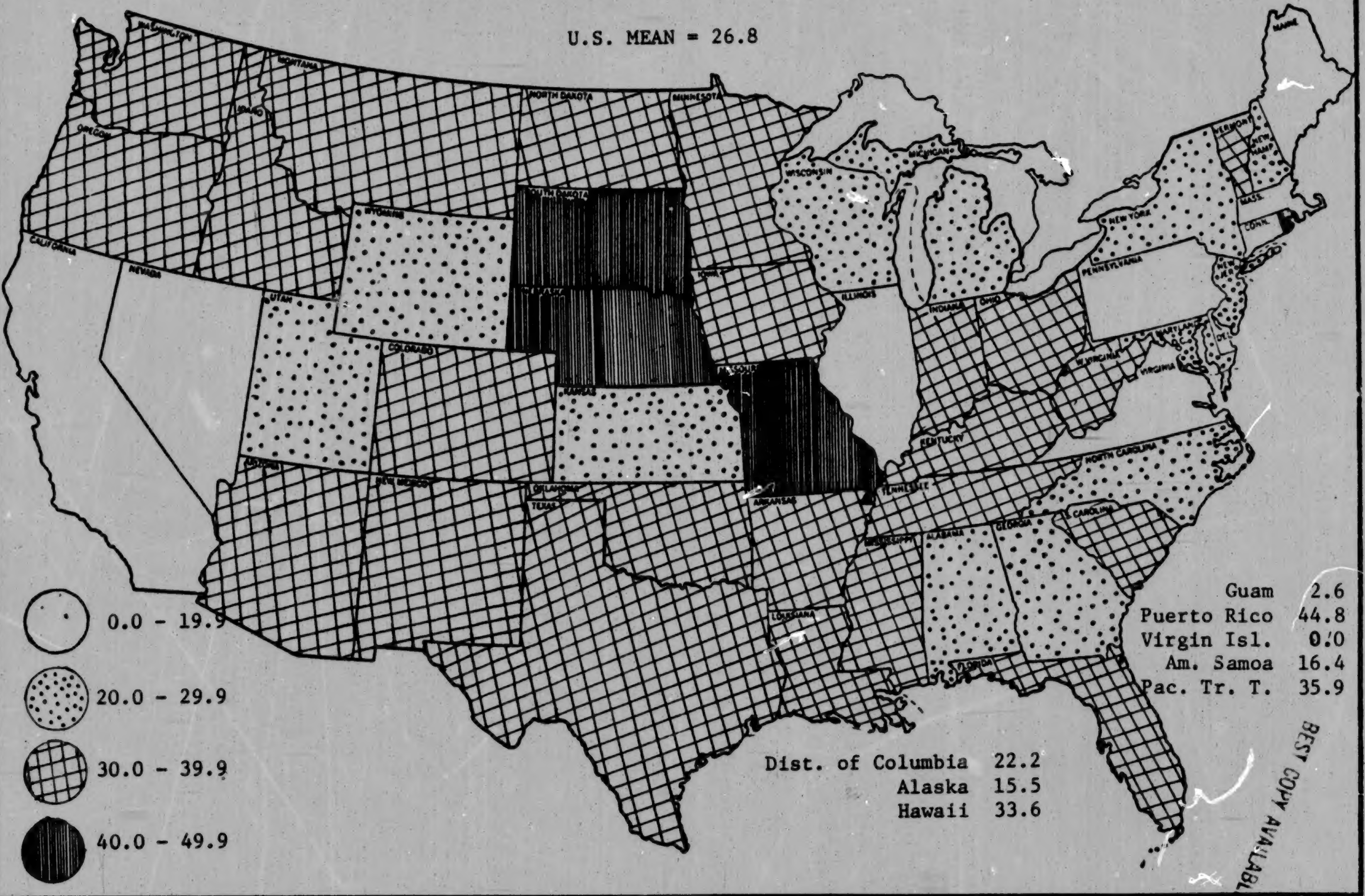
U.S. MEAN = 26.8

State	Percent	State	Percent
Rhode Island	46.3	Louisiana	30.5
Puerto Rico	44.8	Mississippi	30.0
South Dakota	42.0	New York	29.3
Nebraska	40.7	North Carolina	28.6
Missouri	40.5	Maryland	28.2
Idaho	39.7	New Hampshire	27.4
Texas	39.7	Wyoming	26.8
Oregon	39.2	Utah	26.1
North Dakota	38.7	Alabama	25.9
Indiana	37.7	Michigan	25.8
Vermont	36.4	Georgia	25.6
Pacific Tr. Territories	35.9	New Jersey	24.8
Arkansas	35.0	Kansas	23.1
Ohio	35.0	Dist. of Columbia	22.2
Arizona	34.9	Wisconsin	21.3
Colorado	34.6	Nevada	19.5
Kentucky	34.1	Virginia	18.4
West Virginia	34.1	Connecticut	17.4
Florida	33.7	Delaware	16.9
Hawaii	33.6	California	16.6
Tennessee	33.1	American Samoa	16.4
Washington	32.9	Alaska	15.5
Montana	32.1	Pennsylvania	15.4
Minnesota	31.6	Maine	10.4
South Carolina	31.6	Illinois	5.9
Oklahoma	31.6	Massachusetts	3.9
Iowa	31.0	Guam	2.6
New Mexico	30.8	Virgin Islands	0.0

FIGURE 6

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION
ENROLLMENT IN CONSUMER & HOMEMAKING, 1970-71

U.S. MEAN = 26.8


WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
COLORADO
ARIZONA
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
S. CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
MARYLAND
DEL.
PENNSYLVANIA
NEW YORK
CONN.
MASS.
VERMONT
NEW HAMP.
MAINE
0.0 - 19.9
20.0 - 29.9
30.0 - 39.9
40.0 - 49.9
Guam 2.6
Puerto Rico 44.8
Virgin Isl. 0.0
Am. Samoa 16.4
Pac. Tr. T. 35.9
Dist. of Columbia 22.2
Alaska 15.5
Hawaii 33.6

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Enrollment in occupational home economics compared with total vocational education enrollment. Occupational home economics is a fairly new program through which students are being trained for employment in occupations such as food service and hotel management. It is in some respects a natural extention of traditional home economics, but contains obviously new elements related to other fields, including office occupations, distributive education, and health occupations. It could be considered a direct product of the vocational legislation of the 1960s, a new thrust to provide job training for students who need jobs and may not be interested in or qualified for training in other areas. It also provides trained personnel for some of the most rapidly expanding service occupations in the Nation today.

Since occupational home economics is a recent development, it is not surprising that ten States have fewer than one percent of their total vocational education enrollments in this program: Wyoming, Rhode Island, New Hampshire, Virginia, Connecticut, Nebraska, Louisiana, Kansas, New York, and Washington. In at least one State, Rhode Island, the relatively low enrollment in occupational home economics has an obvious relationship to that State's relatively high enrollment in consumer and homemaking. It is noteworthy that six States had more than three percent of their total vocational education enrollment in occupational home economics in 1970-71: Arizona, North Carolina, Illinois, South Dakota, Alabama, and Minnesota.

Enrollment in office occupations compared with total vocational education enrollment. Office occupations has one of the widest variations in relative emphasis among different States. Two factors are probably responsible -- variations in unreported office occupations in secondary schools, and variations in effort to build a strong office occupations program.

Figure 9 shows a rather striking pattern of relatively low emphasis on office occupations in the Nation's midsection and most of the Old South. The North Atlantic States, plus Illinois, Wyoming, Louisiana, New Mexico, and California report the highest relative emphasis, ranging from 58.1 percent in Massachusetts down to 30.2 percent in Pennsylvania. Louisiana reports 34.4 percent, California 34.7 percent, New Mexico 37.7 percent, Wyoming 41.4 percent, and Illinois 43.8 percent. Ten States report less than ten percent of their total vocational education enrollments in office occupations -- Vermont (9.7 percent), Alabama (9.7 percent), Oklahoma (8.2 percent) North Carolina (8.2 percent) South Dakota (8.1 percent), Iowa (7.8 percent), Arkansas (7.8 percent), Texas (7.3 percent), Mississippi (7.1 percent), and Rhode Island (4.1 percent) -- and the District of Columbia reported 8.6 percent.

Enrollment in technical education compared with total vocational education enrollment. Technical education is largely a post-secondary preparation for a variety of careers including middle management in business, police science, a whole range of engineering related occupations, and a growing number of sub-professional activities. Few of these were recognized training programs on a national scale before the vocational education legislation of the 1960s and the rapid expansion of two-year colleges. Engineering technology was the principal exception and remains the leading technical

TABLE 38A

Vocational Education Enrollment in Occupational Home Economics as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Occupational Home Economics Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844 [1]	192,152	2.1
Alabama	147,220	6,714	4.6
Alaska	13,147	233	1.8
Arizona	88,471	3,251	3.7
Arkansas	103,907	1,163	1.1
California	1,204,611	25,509	2.1
Colorado	95,309	1,666	1.7
Connecticut	113,694	638	.6
Delaware	31,211	787	2.5
Dist. of C.	11,008	188	1.7
Florida	438,087	10,843	2.5
Georgia	255,887	5,030	2.0
Hawaii	38,692	522	1.3
Idaho	30,370	332	1.1
Illinois	541,178	22,579	4.2
Indiana	131,338	2,631	2.0
Iowa	127,911	1,905	1.5
Kansas	93,151	862	.9
Kentucky	145,324	1,666	1.1
Louisiana	174,373	1,332	.8
Maine	23,424	559	2.4
Maryland	141,774	2,210	1.6
Massachusetts	121,950	2,242	1.8
Michigan	320,055	9,233	2.9
Minnesota	219,085	11,950	5.5
Mississippi	101,768	1,695	1.7

[1] Totals shown in this column are the sum of totals shown in each occupational area and therefore will not necessarily match State enrollment totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 38A Cont'd

States	Total Vocational Education Enrollment	Total Occupational Home Economics Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	2,023	1.4
Montana	27,328	293	1.1
Nebraska	65,318	369	.6
Nevada	18,110	505	2.8
New Hamp.	23,082	86	.4
New Jersey	292,516	7,061	2.4
New Mexico	49,178	802	1.6
New York	669,717	6,117	.9
N. Carolina	376,817	14,990	4.0
N. Dakota	26,215	453	1.7
Ohio	389,044	4,368	1.1
Oklahoma	109,658	2,714	2.5
Oregon	101,090	1,038	1.0
Penn.	337,835	7,949	2.4
Rhode Isl.	18,370	36	.2
S. Carolina	93,616	1,353	1.5
S. Dakota	21,413	892	4.2
Tennessee	144,866	1,941	1.3
Texas	577,695	10,361	1.8
Utah	94,983	1,965	2.1
Vermont	12,593	176	1.4
Virginia	243,000	1,285	.5
Washington	226,118	1,975	.9
W. Virginia	59,199	1,102	1.9
Wisconsin	193,246	3,047	1.6
Wyoming	14,249	0	0.0
Guam	2,817	0	0.0
Puerto Rico	109,809	2,905	2.6
Virgin Isl.	1,769	606	34.3
Am. Samoa	1,702	0	0.0
Pac. Tr. Terr.	2,914	0	0.0

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D. C., FY 1971.

TABLE 38B

Rank Order of States by Occupational Home Economics as a Percent of Total Vocational Education Enrollment, 1970-71

U.S. MEAN = 2.1

State	Percent	State	Percent
Virgin Islands	34.3	Maryland	1.6
Minnesota	5.5	New Mexico	1.6
Alabama	4.6	Wisconsin	1.6
Illinois	4.2	Iowa	1.5
South Dakota	4.2	South Carolina	1.5
North Carolina	4.0	Missouri	1.4
Arizona	3.7	Vermont	1.4
Michigan	2.9	Hawaii	1.3
Nevada	2.8	Tennessee	1.3
Puerto Rico	2.6	Arkansas	1.1
Delaware	2.5	Idaho	1.1
Florida	2.5	Kentucky	1.1
Oklahoma	2.5	Montana	1.1
Maine	2.4	Ohio	1.1
New Jersey	2.4	Oregon	1.0
Pennsylvania	2.4	Kansas	.9
California	2.1	New York	.9
Utah	2.1	Washington	.9
Georgia	2.0	Louisiana	.8
Indiana	2.0	Connecticut	.6
West Virginia	1.9	Nebraska	.6
Alaska	1.8	Virginia	.5
Massachusetts	1.8	New Hampshire	.4
Texas	1.8	Rhode Island	.2
Colorado	1.7	Wyoming	0.0
Dist. of Columbia	1.7	Guam	0.0
Mississippi	1.7	American Samoa	0.0
North Dakota	1.7	Pacific Tr. Territories	0.0

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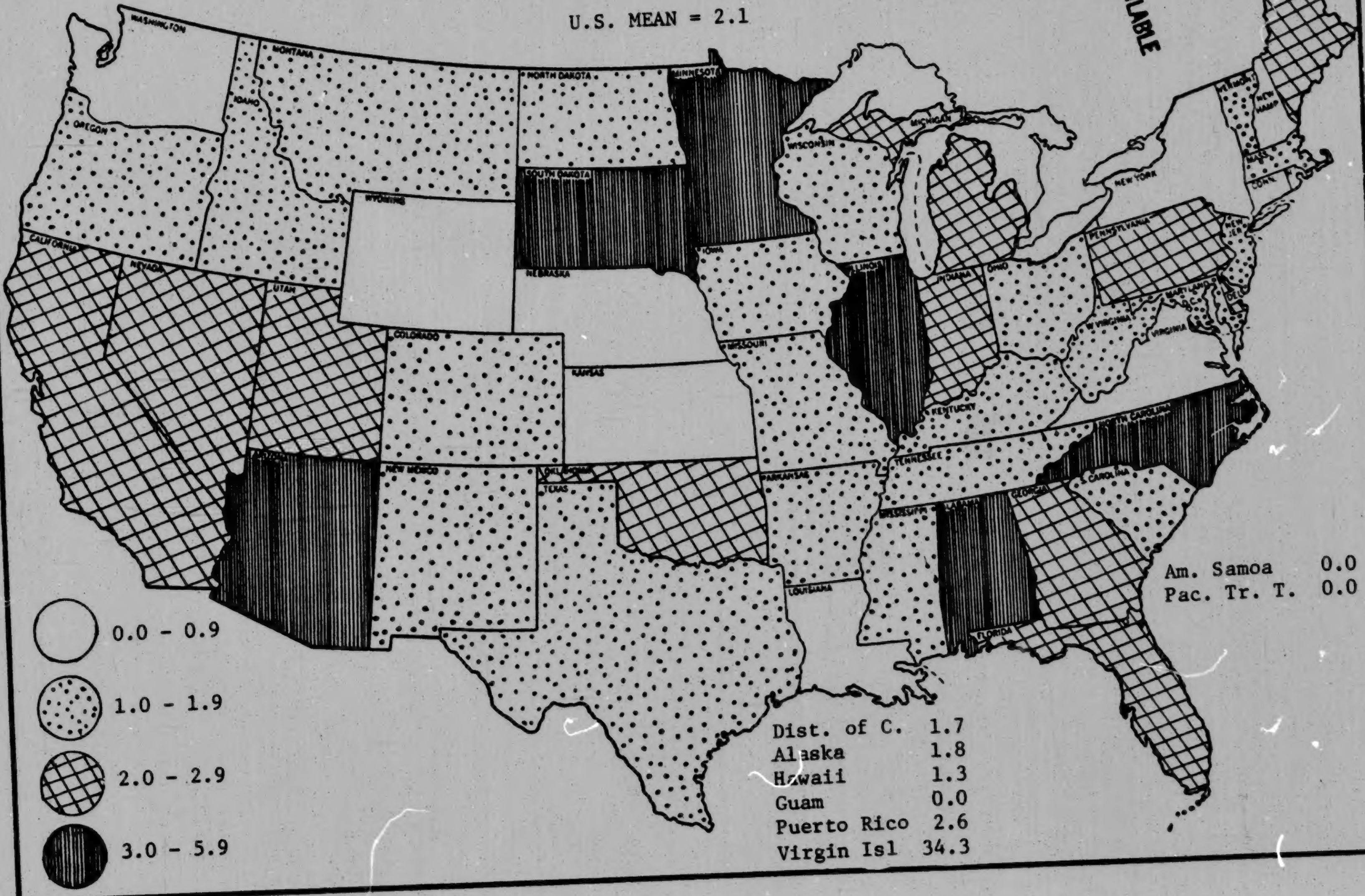
FIGURE 7

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION ENROLLMENT IN OCCUPATIONAL HOME ECONOMICS, 1970-71

U.S. MEAN = 2.1


WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
PENNSYLVANIA
NEW YORK
MARYLAND
D.C.
DEL.
NEW JER.
CONN.
MASS.
VERMONT
NEW HAMP.
MAINE
0.0 - 0.9
1.0 - 1.9
2.0 - 2.9
3.0 - 5.9

Dist. of C.	1.7
Alaska	1.8
Hawaii	1.3
Guam	0.0
Puerto Rico	2.6
Virgin Isl	34.3

Am. Samoa	0.0
Pac. Tr. T.	0.0

TABLE 39A

Vocational Education Enrollment in Office Occupations as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Office Occupations Enrollment	Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844	2,220,499	24.2
Alabama	147,220	14,207	9.7
Alaska	13,147	5,021	38.2
Arizona	88,471	17,110	19.3
Arkansas	103,907	8,063	7.8
California	1,204,611	418,053	34.7
Colorado	95,309	20,455	21.5
Connecticut	113,694	46,250	40.7
Delaware	31,211	15,664	50.2
Dist. of C.	11,008	945	8.6
Florida	438,087	76,941	17.6
Georgia	255,887	83,050	32.5
Hawaii	38,692	12,200	31.5
Idaho	30,370	5,599	18.4
Illinois	541,178	236,939	43.8
Indiana	131,338	19,855	15.1
Iowa	127,911	9,723	7.8
Kansas	93,151	9,662	10.4
Kentucky	145,324	19,713	13.6
Louisiana	174,373	60,006	34.4
Maine	23,424	8,987	38.4
Maryland	141,774	52,573	37.1
Massachusetts	121,950	70,911	58.1
Michigan	320,055	61,429	19.2
Minnesota	219,085	28,560	13.2
Mississippi	101,768	7,184	7.1

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[1] Totals shown in this column are the sum of totals shown in each occupational area and therefore will not necessarily match State enrollment totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 39A Cont'd

States	Total Vocational Education Enrollment	Total Office Occupations Enrollment	Percent of Total Vocational Education Enrollment
Missouri	143,632	18,268	12.7
Montana	27,328	5,351	19.6
Nebraska	65,318	7,399	11.3
Nevada	18,110	4,871	26.9
New Hamp.	23,082	9,927	43.0
New Jersey	292,516	115,995	29.5
New Mexico	49,178	18,518	37.7
New York	669,717	217,964	32.5
N. Carolina	376,817	30,795	8.2
N. Dakota	26,215	4,298	16.4
Ohio	389,044	41,386	10.6
Oklahoma	109,658	8,972	8.2
Oregon	101,090	23,406	23.2
Penn.	337,835	101,994	30.2
Rhode Isl.	18,370	749	4.1
S. Carolina	93,616	11,058	11.8
S. Dakota	21,413	1,734	8.1
Tennessee	144,866	16,166	11.2
Texas	577,695	42,112	7.3
Utah	94,983	27,174	28.6
Vermont	12,593	1,226	9.7
Virginia	243,000	60,057	24.7
Washington	226,118	55,882	24.7
W. Virginia	59,199	10,440	17.6
Wisconsin	193,246	49,408	25.6
Wyoming	14,249	5,896	41.4
Guam	2,817	490	17.4
Puerto Rico	109,809	18,400	16.8
Virgin Isl.	1,769	428	24.2
Am. Samoa	1,702	675	39.7
Pac. Tr. Terr.	2,914	360	12.4

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 39B

Rank Order of States by Office Occupations as a Percent of Total Vocational Education Enrollment, 1970-71

U.S. MEAN = 24.2

State	Percent	State	Percent
Massachusetts	58.1	Michigan	19.2
Delaware	50.2	Idaho	18.4
Illinois	43.8	Guam	17.4
New Hampshire	43.0	Florida	17.6
Wyoming	41.4	West Virginia	17.6
Connecticut	40.7	Puerto Rico	16.8
American Samoa	39.7	North Dakota	16.4
Maine	38.4	Indiana	15.1
Alaska	38.2	Kentucky	13.6
New Mexico	37.7	Minnesota	13.2
Maryland	37.1	Missouri	12.7
California	34.7	Pacific Tr. Terr.	12.4
Louisiana	34.4	South Carolina	11.8
Georgia	32.5	Nebraska	11.3
New York	32.5	Tennessee	11.2
Hawaii	31.5	Ohio	10.6
Pennsylvania	30.2	Kansas	10.4
New Jersey	29.5	Alabama	9.7
Utah	28.6	Vermont	9.7
Nevada	26.9	Dist. of Columbia	8.6
Wisconsin	25.6	North Carolina	8.2
Virginia	24.7	Oklahoma	8.2
Washington	24.7	South Dakota	8.1
Virgin Islands	24.2	Arkansas	7.8
Oregon	23.2	Iowa	7.8
Colorado	21.5	Texas	7.3
Montana	19.6	Mississippi	7.1
Arizona	19.3	Rhode Island	4.1

FIGURE 8

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION ENROLLMENT IN OFFICE OCCUPATIONS, 1970-71

U.S. MEAN = 24.2

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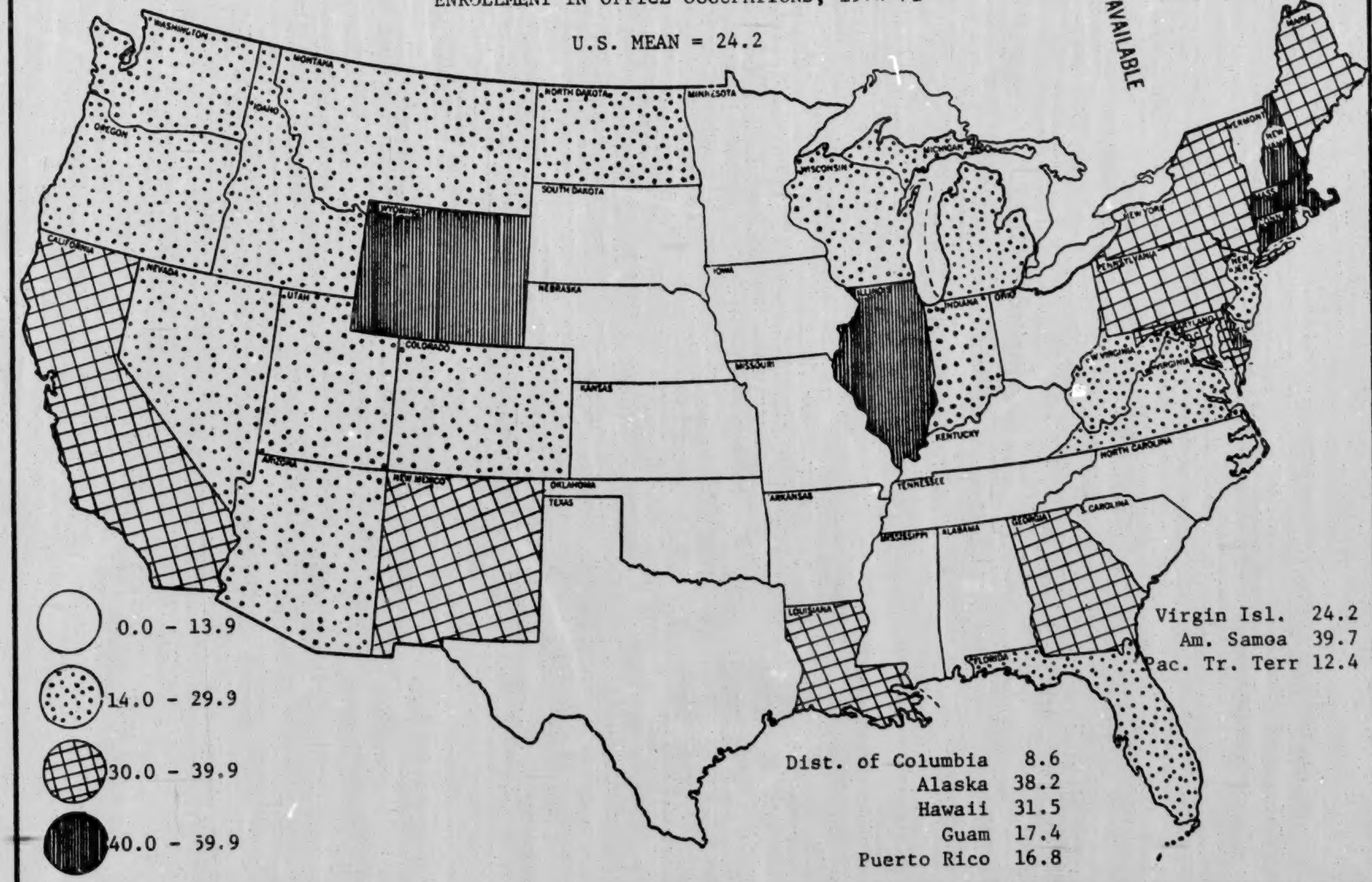
WASHINGTON
OREGON
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MONTANA
CALIFORNIA
NEVADA
UTAH
WYOMING
COLORADO
ARIZONA
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
S. CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
MARYLAND
PENNSYLVANIA
NEW YORK
NEW JERSEY
VERMONT
NEW HAMP.
MASS.
CONN.
MAINE
0.0 - 13.9
14.0 - 29.9
30.0 - 39.9
40.0 - 59.9

Dist. of Columbia	8.6
Alaska	38.2
Hawaii	31.5
Guam	17.4
Puerto Rico	16.8

Virgin Isl.	24.2
Am. Samoa	39.7
Pac. Tr. Terr	12.4

TABLE 40A

Vocational Education Enrollment in Technical Education as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Technical Enrollment	Total Technical Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844[1]	312,944	3.4
Alabama	147,220	2,330	1.6
Alaska	13,147	1,695	12.9
Arizona	88,471	3,591	4.1
Arkansas	103,907	154	.1
California	1,204,611	51,127	4.2
Colorado	95,309	4,619	4.8
Connecticut	113,694	11,340	10.0
Delaware	31,211	728	2.3
Dist. of C.	11,008	0	0.0
Florida	438,087	28,085	6.4
Georgia	255,887	7,055	2.8
Hawaii	38,692	399	1.0
Idaho	30,370	739	2.4
Illinois	541,178	13,453	2.5
Indiana	131,338	1,041	.8
Iowa	127,911	2,198	1.7
Kansas	93,151	537	.6
Kentucky	145,324	1,143	.8
Louisiana	174,373	3,553	2.0
Maine	23,424	1,225	5.2
Maryland	141,774	5,709	4.0
Massachusetts	121,950	2,006	1.6
Michigan	320,055	11,555	3.6
Minnesota	219,085	7,427	3.4
Mississippi	101,768	6,229	6.1

---

[1] Totals shown in this column are the sum of totals shown in each occupational area and therefore will not necessarily match State enrollment totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 40A Cont'd

States	Total Vocational Education Enrollment	Total Technical Enrollment	Total Technical Enrollment as a Percent of Total Vocational Education Enrollment
Missouri	143,632	4,085	2.8
Montana	27,328	653	2.4
Nebraska	65,318	612	.9
Nevada	18,110	1,931	10.7
New Hamp.	23,082	311	1.3
New Jersey	292,516	6,814	2.3
New Mexico	49,178	605	1.2
New York	669,717	40,954	6.1
N. Carolina	376,817	10,514	2.8
N. Dakota	26,215	602	2.3
Ohio	389,044	5,720	1.5
Oklahoma	109,658	7,850	7.2
Oregon	101,090	4,522	4.5
Penn.	337,835	18,183	5.4
Rhode Isl.	18,370	700	3.8
S. Carolina	93,616	1,195	1.3
S. Dakota	21,413	659	3.1
Tennessee	144,866	3,640	2.5
Texas	577,695	7,846	1.4
Utah	94,983	644	.7
Vermont	12,593	352	2.8
Virginia	243,000	4,183	1.7
Washington	226,118	10,608	4.7
W. Virginia	59,199	2,491	4.2
Wisconsin	193,246	7,193	3.7
Wyoming	14,249	220	1.5
Guam	2,817	143	5.1
Puerto Rico	109,809	1,751	1.6
Virgin Isl.	1,769	25	1.4
Am. Samoa	1,702	0	0.0
Pac. Tr. Terr.	2,914	0	0.0

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 40B

Rank Order of States by Technical Education as a Percent of Total Vocational Education Enrollment, 1970-71

U.S. MEAN = 3.4

ate	Percent	State	Percent
aska	12.9	Idaho	2.4
evada	10.7	Montana	2.4
onnecticut	10.0	Delaware	2.3
lahoma	7.2	New Jersey	2.3
orida	6.4	North Dakota	2.3
ssissippi	6.1	Louisiana	2.0
w York	6.1	Iowa	1.7
ennsylvania	5.4	Virginia	1.7
ine	5.2	Alabama	1.6
am	5.1	Massachusetts	1.6
lorado	4.8	Puerto Rico	1.6
shington	4.7	Ohio	1.5
regon	4.5	Wyoming	1.5
alifornia	4.2	Texas	1.4
est Virginia	4.2	Virgin Islands	1.4
rizona	4.1	New Hampshire	1.3
aryland	4.0	South Carolina	1.3
ode Island	3.8	New Mexico	1.2
isconsin	3.7	Hawaii	1.0
ichigan	3.6	Nebraska	.9
innesota	3.4	Indiana	.8
outh Dakota	3.1	Kentucky	.8
eorgia	2.8	Utah	.7
issouri	2.8	Kansas	.6
orth Carolina	2.8	Arkansas	.1
ermont	2.8	Dist. of Columbia	0.0
llinois	2.5	American Samoa	0.0
ennessee	2.5	Pacific Trust Territories	0.0

FIGURE 9

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION ENROLLMENT IN TECHNICAL EDUCATION, 1970-71

U.S. MEAN = 3.4

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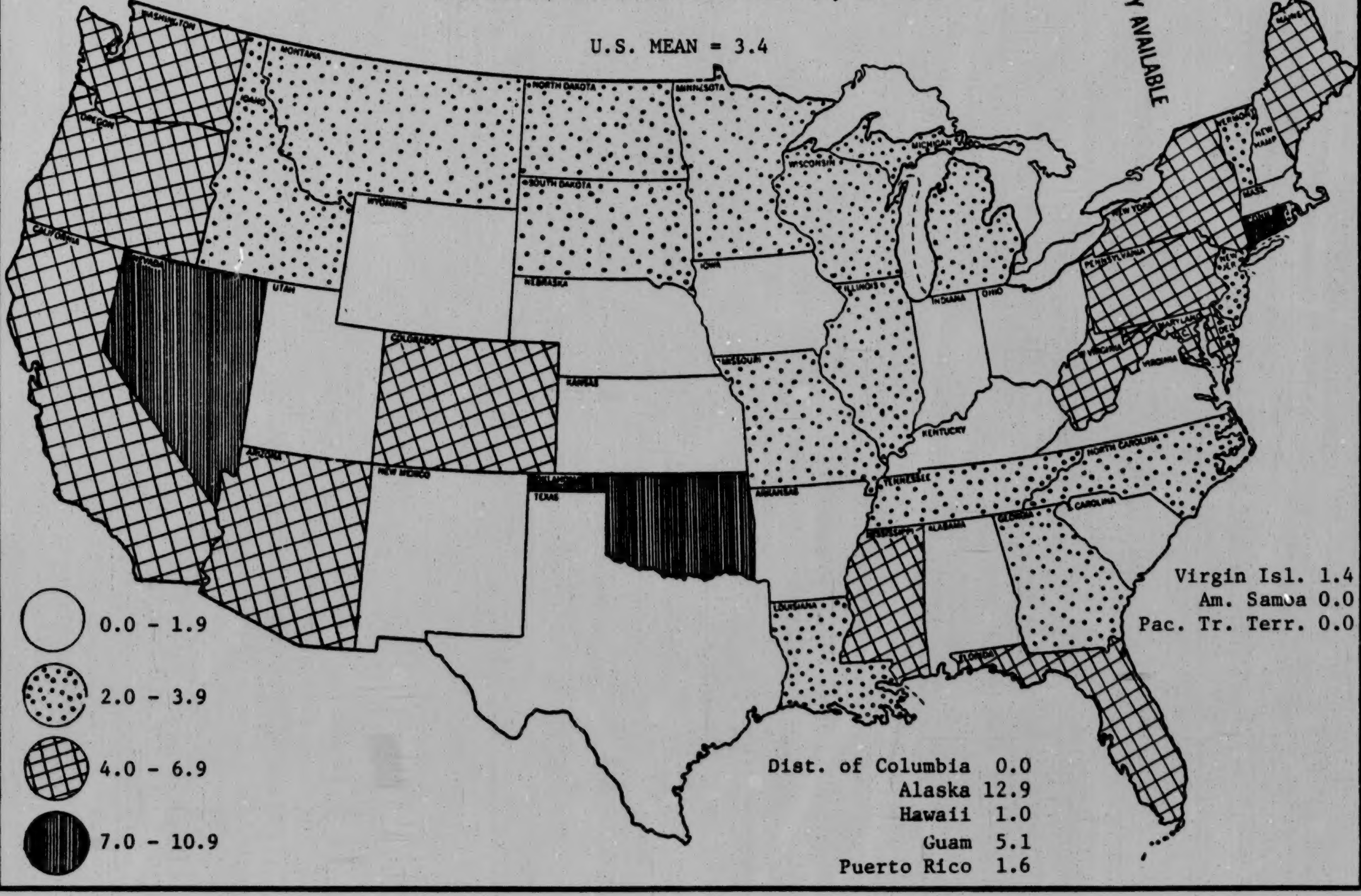

WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
PENNSYLVANIA
NEW YORK
MARYLAND
DEL.
NEW JER.
CONN.
MASS.
VERMONT
NEW HAMP.
MAINE
0.0 - 1.9
2.0 - 3.9
4.0 - 6.9
7.0 - 10.9
Dist. of Columbia 0.0
Alaska 12.9
Hawaii 1.0
Guam 5.1
Puerto Rico 1.6
Virgin Isl. 1.4
Am. Samoa 0.0
Pac. Tr. Terr. 0.0

education program, but so much specialization and so many interdisciplinary combinations have taken place that to speak of engineering technology in the singular is becoming increasingly difficult. Probably nowhere in the entire field of vocational education has so much change, innovation, and new development taken place in the past decade.

The relative emphasis on technical education as compared with other programs is not great; more than a third of the States have fewer than two percent of their total enrollment in this category. On the other hand, three States have ten percent or more of their vocational education enrollment in technical education, and this can be expected to increase significantly each year. Geographic patterns, even with such a low relative enrollment, are suggested in Figure 9. The Northeastern States except for Massachusetts[1] and New Hampshire, the West Coast, and a group of States across the South show the heaviest concentration. States with the lightest concentration are so scattered that no relationship seems to exist.

Enrollment in trade and industrial education compared with total vocational education enrollment. Trade and industrial education as a percent of total vocational education varies from one State to another almost as much as office occupations. This is, of course, the other area of substantial unreported enrollments, and it can be assumed that this alone accounts for some of the variations. It is still noteworthy that a greater relative emphasis is placed on trade and industrial programs in the Central and Eastern parts of the United States than in the Rocky Mountains or West.

Even so, only fourteen States have one-fourth or more of their vocational education enrollments in a field broad enough to include the entire construction and manufacturing industries and much of the service industry. If this is not the result of underreporting, it raises serious questions about most States' allocation of vocational education resources in relation to employment market demand. It is difficult to believe that the need for trained manpower in the United States today and in the foreseeable future in all of the occupations represented by trade and industry is only one-fourth of the total need for which vocational education helps to prepare the Nation's labor force.

Manpower Training

The following tables and analyses are presented separately for MDTA enrollments and EOA program enrollments. Apprenticeship trainees are found entirely in the trade and industrial occupations classifications, therefore are not included in the analyses. MDTA and EOA data provide some bases of comparison with vocational education data, although the necessity to use vocational education's eight-category classification system creates an unwieldy and somewhat meaningless category in trade and industrial occupations.

---

[1] In Massachusetts there are approximately 5,000 technical and trade and industry enrollments in the Lowell Evening School which are not included in either Federal or State vocational education statistics. It is a public school with its own charter and its own separate legislative appropriation, with classes scheduled in all parts of the State.

TABLE 41A

Vocational Education Enrollment in Trade and Industry as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Trade and Industry Enrollment	Total Trade and Industry Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,160,844[1]	2,052,750	22.5
Alabama	147,220	33,867	23.0
Alaska	13,147	2,043	15.5
Arizona	88,471	16,719	18.9
Arkansas	103,907	24,194	23.3
California	1,204,611	274,188	22.8
Colorado	95,309	18,911	19.8
Connecticut	113,694	28,070	24.7
Delaware	31,211	4,478	14.3
Dist. of C.	11,008	3,381	30.7
Florida	438,087	90,648	20.7
Georgia	255,887	36,842	14.4
Hawaii	38,692	7,842	20.3
Idaho	30,370	4,862	16.0
Illinois	541,178	177,287	32.8
Indiana	131,338	27,572	21.0
Iowa	127,911	26,141	20.4
Kansas	93,151	38,685	41.5
Kentucky	145,324	35,977	24.8
Louisiana	174,373	23,679	13.6
Maine	23,424	7,472	31.9
Maryland	141,774	27,365	19.3
Massachusetts	121,950	33,534	27.5
Michigan	320,055	83,502	26.1
Minnesota	219,085	50,987	23.3
Mississippi	101,768	22,039	21.7

[1] Totals shown in this column are the sum of totals shown in each occupational area and therefore will not necessarily match State enrollment totals shown in other Tables. A number of States used unduplicated totals in the "Grand Total" column of Form 3138 but used duplicated totals in individual occupational area breakouts.

TABLE 41A con't.

States	Total Vocational Education Enrollment	Total Trade and Industry Enrollment	Total Trade and Industry Enrollment as a Percent of Total Vocational Education Enrollment
Missouri	143,632	26,492	18.4
Montana	27,328	6,594	24.1
Nebraska	65,318	14,944	22.9
Nevada	18,110	4,874	26.9
New Hamp.	23,082	3,996	17.3
New Jersey	292,516	51,174	17.5
New Mexico	49,178	6,960	14.2
New York	669,717	125,922	18.8
N. Carolina	376,817	122,725	32.6
N. Daktoa	26,215	3,592	13.7
Ohio	389,044	93,992	24.2
Oklahoma	109,658	22,654	20.7
Oregon	101,090	19,435	19.2
Penn.	337,835	76,417	22.6
Rhode Isl.	18,370	5,058	27.5
S. Carolina	93,616	18,646	19.9
S. Dakota	21,413	3,017	14.1
Tennessee	144,866	38,197	26.4
Texas	577,695	86,603	15.0
Utah	94,983	17,853	18.8
Vermont	12,593	3,590	28.5
Virginia	243,000	61,339	25.2
Washington	226,118	45,743	20.2
W. Virginia	59,199	18,599	31.4
Wisconsin	193,246	49,006	25.4
Wyoming	14,249	1,398	9.8
Guam	2,817	919	32.6
Puerto Rico	109,809	20,991	19.1
Virgin Isl.	1,769	407	23.0
Am. Samoa	1,702	290	17.0
Pac. Tr. Terr.	2,914	1,038	35.6

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C. FY 1971.

TABLE 41B

Rank Order of States by Trade and Industrial Education as a Percent of Total Vocational Education Enrollment, 1970-71

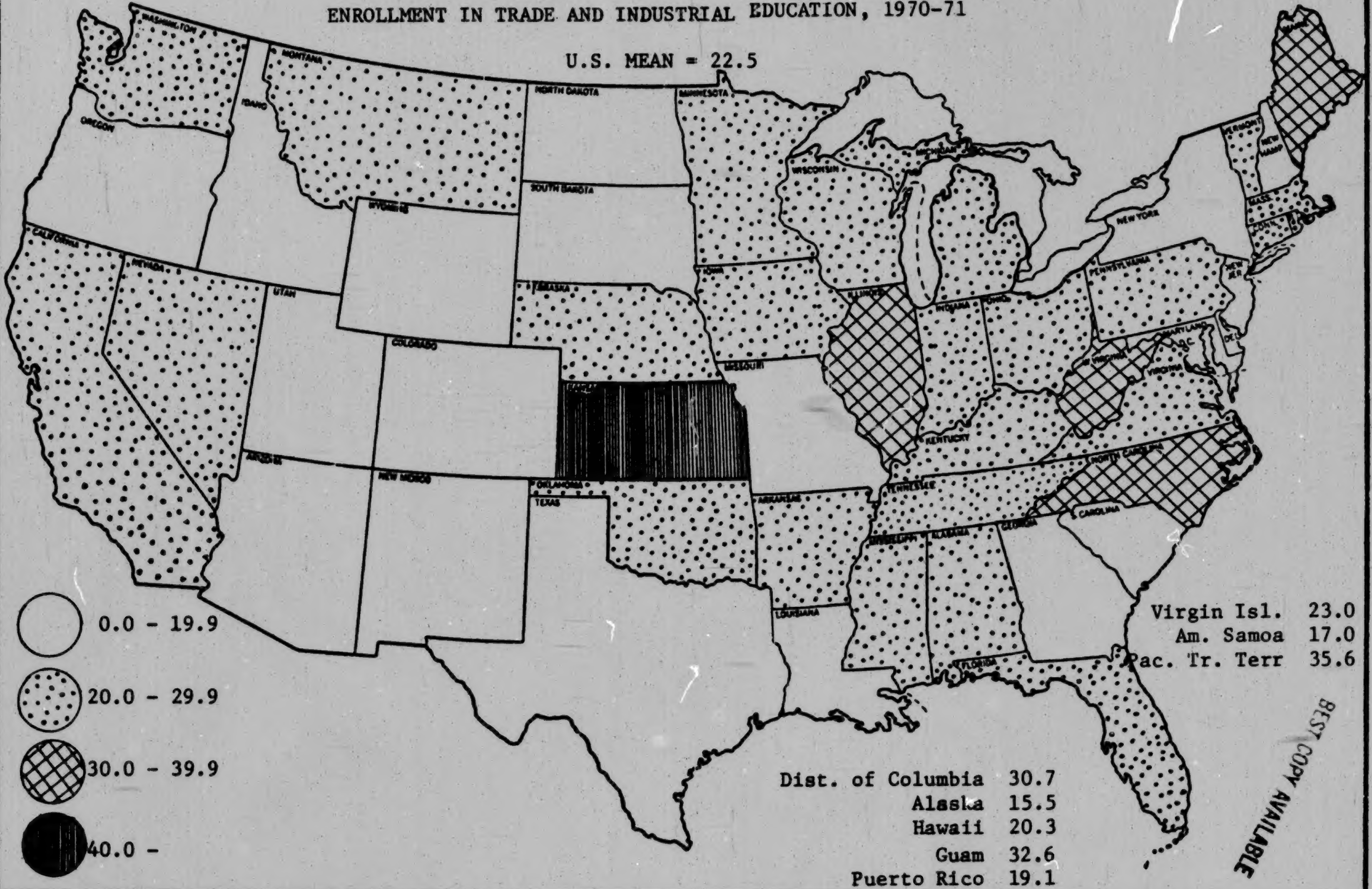
U.S. MEAN = 22.5

State	Percent	State	Percent
Kansas	41.5	Indiana	21.0
Pacific Trust Territories	35.6	Florida	20.7
Illinois	32.8	Oklahoma	20.7
Guam	32.6	Iowa	20.4
North Carolina	32.6	Hawaii	20.3
Maine	31.9	Washington	20.2
West Virginia	31.4	South Carolina	19.9
Dist. Of Columbia	30.7	Colorado	19.8
Vermont	28.5	Maryland	19.3
Massachusetts	27.5	Oregon	19.2
Rhode Island	27.5	Puerto Rico	19.1
Nevada	26.9	Arizona	18.9
Tennessee	26.4	New York	18.8
Michigan	26.1	Utah	18.8
Wisconsin	25.4	Missouri	18.4
Virginia	25.2	New Jersey	17.5
Kentucky	24.8	New Hampshire	17.3
Connecticut	24.7	American Samoa	17.0
Ohio	24.2	Idaho	16.0
Montana	24.1	Alaska	15.5
Arkansas	23.3	Texas	15.0
Minnesota	23.3	Georgia	14.4
Alabama	23.0	Delaware	14.3
Virgin Islands	23.0	New Mexico	14.2
Nebraska	22.9	South Dakota	14.1
California	22.8	North Dakota	13.7
Pennsylvania	22.6	Louisiana	13.6
Mississippi	21.7	Wyoming	9.8

FIGURE 10

COMPARISON OF STATES BY PERCENT OF VOCATIONAL EDUCATION ENROLLMENT IN TRADE AND INDUSTRIAL EDUCATION, 1970-71

U.S. MEAN = 22.5


WASHINGTON
OREGON
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MONTANA
WYOMING
NORTH DAKOTA
SOUTH DAKOTA
MINNESOTA
WISCONSIN
MICHIGAN
CALIFORNIA
NEVADA
UTAH
COLORADO
NEBRASKA
IOWA
ILLINOIS
INDIANA
OHIO
PENNSYLVANIA
NEW YORK
VERMONT
NEW HAMP.
MAINE
MASS.
CONN.
NEW JER.
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MARYLAND
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W. VIRGINIA
KANSAS
MISSOURI
KENTUCKY
ARIZONA
NEW MEXICO
OKLAHOMA
TEXAS
ARKANSAS
TENNESSEE
NORTH CAROLINA
S. CAROLINA
GEORGIA
MISSISSIPPI
ALABAMA
LOUISIANA
FLORIDA
0.0 - 19.9
20.0 - 29.9
30.0 - 39.9
40.0 -
Virgin Isl. 23.0
Am. Samoa 17.0
Pac. Tr. Terr 35.6
Dist. of Columbia 30.7
Alaska 15.5
Hawaii 20.3
Guam 32.6
Puerto Rico 19.1

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Only seven of the eight categories are analysed separately because neither MDTA nor EOA has consumer and homemaking programs. Nearly half of all MDTA trainees nationally and seven percent of those who can be identified occupationally in EOA programs are in trade and industrial occupations. Approximately one-fourth of MDTA and eighty-two percent of EOA trainees are in occupational areas which cannot be identified. The largest remaining category is office occupations, with fourteen percent of all MDTA enrollees and six percent of EOA enrollees who can be identified. The remaining classifications have total percentages in MDTA and EOA respectively as follows: nine percent and two percent in health occupations; three percent and one percent in distributive education; two percent and 0.3 percent in both agriculture and technical education; and less than one percent in occupational home economics.

Occupational areas which may have percentages of training enrollments too low for the enployment market demand in MDTA and EOA as well as vocational education are health (2.9 percent of vocational education students), distribubutive education (6.3 percent of vocational education students), and technical education (3.4 percent of vocational education students). These areas -- particularly health occupations -- would seem to have the greatest need of expansion of training opportunities in Federally supported programs throughout the Nation.

TABLE 42

Enrollment and Percent of MDTA Trainees in Agriculture and Distributive Education, 1970-71

States	Enrollment of MDTA Trainees in All Occupational Areas	Enrollment of MDTA Trainees in Agriculture	Percent of Total	Enrollment of MDTA Trainees in Distributive Education	Percent of Total
U.S. TOTAL	178,978 [1]	3,844	2.1	4,883	2.7
Alabama	2,975	89	3.0	137	4.6
Alaska	607	0	0.0	50	8.2
Arizona	3,402	51	1.5	62	1.8
Arkansas	1,209	34	2.8	30	2.5
California	14,980	712	4.8	491	3.3
Colorado	3,089	42	1.4	112	3.6
Connecticut	2,792	3	.1	26	.9
Delaware	552	2	.4	0	0.0
Dist. of C.	720	23	3.2	17	2.4
Florida	2,846	63	2.2	89	3.1
Georgia	5,514	124	2.2	153	2.8
Hawaii	904	9	1.0	15	1.7
Idaho	915	10	1.1	12	1.3
Illinois	8,483	210	2.5	252	3.0
Indiana	4,135	61	1.5	205	5.0
Iowa	2,872	45	1.7	110	3.8
Kansas	2,920	340	11.6	92	3.2
Kentucky	3,170	22	.7	126	4.0
Louisiana	2,615	37	1.4	72	2.8
Maine	1,012	11	1.1	27	2.7
Maryland	2,658	35	1.3	28	1.1
Massachusetts	5,989	20	.3	20	.3
Michigan	6,665	85	1.3	145	2.2
Minnesota	3,106	24	.8	83	2.8
Mississippi	2,816	69	2.5	42	1.5

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[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 42 Cont'd

States	Enrollment of MDTA Trainees in All Occupational Areas	Enrollment of MDTA Trainees in Agriculture	Percent of Total	Enrollment of MDTA Trainees in Distributive Education	Percent of Total
Missouri	4,008	116	2.9	99	2.5
Montana	999	52	5.2	64	6.4
Nebraska	1,422	23	1.6	65	4.6
Nevada	822	40	4.9	26	3.2
New Hampshire	742	9	1.2	0	0.0
New Jersey	7,625	39	.5	200	2.6
New Mexico	1,055	3	.3	40	3.8
New York	12,874	30	.2	413	3.2
N. Carolina	4,345	125	2.9	68	1.6
N. Dakota	590	40	6.8	21	3.6
Ohio	7,204	38	.5	131	1.8
Oklahoma	3,432	195	5.7	57	1.7
Oregon	1,682	14	.8	20	1.2
Pennsylvania	8,940	12	.1	153	1.8
Rhode Island	1,065	0	0.0	7	.7
S. Carolina	2,572	81	3.4	124	4.8
S. Dakota	505	28	5.5	11	2.2
Tennessee	3,611	283	7.8	88	2.4
Texas	11,101	128	1.2	340	.3
Utah	1,469	27	1.8	92	6.3
Vermont	637	21	3.3	11	1.7
Virginia	3,450	23	.7	112	3.2
Washington	3,650	125	3.4	154	4.2
W. Virginia	1,849	4	.2	52	2.8
Wisconsin	3,580	118	3.3	91	2.5
Wyoming	491	3	.6	20	4.1
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA	NA	NA
Unident. Sts.	2,312	146	6.3	28	1.2

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and Training Occupation", U.S. Department of Health, Education, & Welfare, Washington, D.C., September, 1972.

TABLE 43

Enrollment and Percent of MDTA Trainees in Health Occupations and Occupational Home Economics, 1970-71

States	Enrollment of MDTA Trainees in All Occupational Areas	Enrollment of MDTA Trainees in Health Occupations	Percent of Total	Enrollment of MDTA Trainees in Occupational Home Economics	Percent of Total
U.S. TOTAL	178,978 [1]	16,528	9.2	1,266	.70
Alabama	2,975	230	7.7	2	.06
Alaska	607	9	1.5	20	3.30
Arizona	3,402	169	5.0	8	.20
Arkansas	1,209	76	6.3	1	.08
California	14,980	899	6.0	55	.36
Colorado	3,089	182	5.9	1	.03
Connecticut	2,792	326	11.7	1	.03
Delaware	552	54	9.8	1	.18
Dist. of C.	720	126	17.5	3	.41
Florida	2,846	298	10.5	4	.14
Georgia	5,514	731	13.3	6	.10
Hawaii	904	57	6.3	13	1.43
Idaho	915	41	4.5	1	.10
Illinois	8,483	1,363	16.1	29	.34
Indiana	4,135	315	7.6	94	2.27
Iowa	2,872	102	3.6	25	3.13
Kansas	2,920	222	7.6	94	4.89
Kentucky	3,170	333	10.5	14	.44
Louisiana	2,615	131	5.0	5	.19
Maine	1,012	54	5.3	1	.09
Maryland	2,658	671	25.2	15	2.23
Massachusetts	5,989	1,050	17.5	65	1.08
Michigan	6,665	1,260	18.9	22	.33
Minnesota	3,106	161	5.2	4	.12
Mississippi	2,816	119	4.2	0	0.00

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[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 43 Cont'd

States	Enrollment of MDTA Trainees in All Occupational Areas	Enrollment of MDTA Trainees in Health Occupations	Percent of Total	Enrollment of MDTA Trainees in Occupational Home Economics	Percent of Total
Missouri	4,008	481	12.0	7	.17
Montana	999	109	11.0	43	4.30
Nebraska	1,422	105	7.4	103	7.24
Nevada	822	72	8.8	2	.24
New Hampshire	742	102	13.7	1	.13
New Jersey	7,625	527	6.9	12	.15
New Mexico	1,055	23	2.2	1	.09
New York	12,874	1,260	9.8	62	.48
N. Carolina	4,345	151	3.5	32	.73
N. Dakota	590	23	3.9	1	.16
Ohio	7,204	752	10.4	43	.59
Oklahoma	3,432	483	14.0	155	4.51
Oregon	1,682	125	7.4	6	.35
Pennsylvania	8,940	873	9.8	24	.26
Rhode Island	1,065	89	8.4	0	0.00
S. Carolina	2,572	150	5.8	10	.38
S. Dakota	505	59	11.7	3	.59
Tennessee	3,611	139	3.8	92	2.54
Texas	11,101	866	7.8	62	.55
Utah	1,469	50	3.4	12	.81
Vermont	637	80	12.6	8	1.25
Virginia	3,450	299	8.7	0	0.00
Washington	3,650	152	4.2	79	2.16
W. Virginia	1,849	183	9.9	9	.48
Wisconsin	3,580	109	3.0	15	.41
Wyoming	491	48	8.8	0	0.00
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Ter.	NA	NA	NA	NA	NA
Unident. Sts.	2,312	239	11.3	0	0.00

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation", U.S. Department of Health, Education, & Welfare, Washington, D.C., September, 1972.

TABLE 44

Enrollment and Percent of MDTA Trainees in Office Occupations and Technical Education, 1970-71

States	Enrollment of MDTA Trainees in All Occupational Areas	Enrollment of MDTA Trainees in Office Occupations	Percent of Total	Enrollment of MDTA Trainees in Technical Education	Percent of Total
U.S. TOTAL	178,978 [1]	24,785	13.8	2,882	1.6
Alabama	2,975	348	11.7	42	.4
Alaska	607	141	23.2	2	.3
Arizona	3,402	226	6.6	7	.2
Arkansas	1,209	319	26.4	5	.4
California	14,980	1,880	12.6	393	2.6
Colorado	3,089	361	11.7	78	2.5
Connecticut	2,792	243	8.7	13	.5
Delaware	552	47	8.5	1	.2
Dist. of C.	720	120	16.7	3	.4
Florida	2,846	333	11.7	37	1.3
Georgia	5,514	922	16.7	19	.3
Hawaii	904	64	7.1	0	0.0
Idaho	915	123	13.4	11	1.2
Illinois	8,483	2,139	25.2	297	3.5
Indiana	4,135	331	8.0	29	.7
Iowa	1,872	516	17.9	13	.5
Kansas	2,920	423	14.5	57	1.9
Kentucky	3,170	300	9.5	71	2.2
Louisiana	2,615	524	20.0	54	2.1
Maine	1,012	124	12.3	14	1.4
Maryland	2,658	378	14.2	57	2.1
Massachusetts	5,989	421	7.0	89	1.5
Michigan	6,665	1,381	20.7	79	1.2
Minnesota	3,106	328	10.6	159	5.1
Mississippi	2,816	152	5.4	22	.8

[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 44 Cont'd

States	Enrollment of MDTA Trainees in All Occupational Areas	Enrollment of MDTA Trainees in Office Occupations	Percent of Total	Enrollment of MDTA Trainees in Technical Education	Percent of Total
Missouri	4,008	689	17.2	82	2.0
Montana	999	177	17.7	0	0.0
Nebraska	1,422	266	18.7	62	4.4
Nevada	822	240	29.2	2	.2
New Hampshire	742	60	8.1	1	.1
New Jersey	7,625	1,404	18.4	158	2.1
New Mexico	1,055	163	15.4	0	0.0
New York	12,874	1,635	12.7	203	1.6
N. Carolina	4,345	327	7.5	12	.3
N. Dakota	590	100	16.9	6	1.0
Ohio	1,204	1,401	19.4	104	1.4
Oklahoma	3,432	618	18.0	98	2.9
Oregon	1,682	229	13.6	27	1.6
Pennsylvania	8,940	1,051	11.7	126	1.4
Rhode Island	1,065	152	14.3	3	.3
S. Carolina	2,572	189	7.3	11	.4
S. Dakota	505	42	8.3	1	.2
Tennessee	3,611	477	13.2	28	.8
Texas	11,101	1,222	11.0	66	.6
Utah	1,469	150	10.2	19	1.3
Vermont	637	71	11.1	0	0.0
Virginia	3,450	546	15.8	2	.1
Washington	3,650	532	14.6	67	2.0
W. Virginia	1,849	116	6.3	12	.6
Wisconsin	3,580	640	17.8	28	.8
Wyoming	491	52	10.6	12	2.4
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Ter.	NA	NA	NA	NA	NA
Unident. Sts.	2,312	92	3.9	200	8.7

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupations," U.S. Department of Health, Education, & Welfare, Washington, D.C., September, 1972.

TABLE 45

Enrollment and Percent of MDTA Trainees in Trade and Industrial Education and Other Occupations 1970-71

States	Enrollment of MDTA Trainees in Occupational Areas	Enrollment of MDTA Trainees in Trade and Industry	Percent of Total	Enrollment of MDTA Trainees in Other Occupations	Percent of Total
U.S. TOTAL	178,978[1]	81,151	45.3	43,639[2]	24.4
Alabama	2,975	2,025	68.1	102	3.4
Alaska	607	215	35.4	170	28.0
Arizona	3,402	1,135	33.4	1,744	51.3
Arkansas	1,209	589	48.7	155	12,8
California	14,980	6,255	41.8	4,295	28.7
Cororado	3,089	1,627	52.7	686	22.2
Connecticut	2,792	882	31.6	1,298	46.5
Delaware	552	264	47.8	183	33.2
Dist. of C.	720	127	17.6	301	41.8
Florida	2,846	1,249	43.8	773	27.2
Georgia	5,514	2,872	52.1	687	12.5
Hawaii	904	385	42.6	361	39.9
Idaho	915	487	53.2	230	25.1
Illinois	8,483	3,011	35.5	1,182	13.9
Indiana	4,135	2,066	49.9	1,034	25.0
Iowa	2,872	1,378	47.9	683	23.8
Kansas	2,920	1,286	44.0	406	13.9
Kentucky	3,170	1,495	47.2	809	25.5
Louisiana	2,615	1,546	59.1	246	9.4
Maine	1,012	534	52.8	247	24.4
Maryland	2,658	913	34.3	561	21.1
Massachusetts	5,989	2,065	34.5	2,259	37.7
Michigan	6,665	3,178	47.7	515	7.7
Minnesota	3,106	1,332	42.9	1,015	32.7
Mississippi	2,816	2,087	74.1	325	11.5

[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

[2] All trainees whose specific area of training could not be identified are included in this column.

TABLE 45 Cont'd

States	Enrollment of MDTA Trainees in All Occupational Areas	Enrollment of MDTA Trainees in Trade and Industry	Percent of Total	Enrollment of MDTA Trainees in Other Occupations	Percent of Total
Missouri	4,008	1,801	44,9	733	18.3
Montana	999	321	32.1	233	23.1
Nebraska	1,422	456	32.1	342	24.1
Nevada	822	410	49.9	30	3.6
New Hampshire	742	336	45.3	233	31.4
New Jersey	7,625	3,924	51.5	1,361	17.8
New Mexico	1,055	374	35.5	451	42.7
New York	12,874	3,282	25.5	5,989	46.5
N. Carolina	4,345	2,839	65.4	791	18.2
N. Dakota	590	200	33.9	199	33.7
Ohio	7,204	4,053	56.3	682	9.5
Oklahoma	3,432	1,672	48.7	154	4.5
Oregon	1,682	517	30.7	744	44.2
Pennsylvania	8,940	4,765	53.3	1,936	21.7
Rhode Island	1,065	409	38.4	405	38.4
S. Carolina	2,572	1,320	51.3	687	26.7
S. Dakota	505	209	41.4	152	30.1
Tennessee	3,611	1,804	49.9	700	19.4
Texas	11,101	4,486	40.4	3,931	35.4
Utah	1,469	854	58.1	265	18.0
Vermont	637	223	35.0	223	35.0
Virginia	3,450	1,933	56.0	535	15.5
Washington	3,650	1,650	45.2	891	24.4
W. Virginia	1,849	1,186	64.1	287	15.5
Wisconsin	3,580	1,454	41.6	1,125	31.4
Wyoming	491	167	34.0	189	38.5
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Ter.	NA	NA	NA	NA	NA
Unident. Sts.	2,312	1,503	64.9	104	4.5

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Health, Education, & Welfare, Washington, D.C., September, 1972.

TABLE 46

Enrollment and Percent of EOA Trainees in Agriculture and Distributive Education, 1970-71

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Agriculture	Percent of Total	Enrollment of EOA Trainees in Distributive Education	Percent of Total
S. TOTAL	252,038[1]	767	.30	2,803	1.11
abama	668	1	.14	40	5.98
aska	559	0	0.00	10	1.78
izona	3,611	26	.72	61	1.68
kansas	4,851	83	1.71	232	4.78
lifornia	24,411	38	.15	381	1.56
lorado	4,494	55	1.22	25	.55
nnecticut	3,367	0	0.00	1	.02
laware	348	0	0.00	2	.57
st. of C.	4,991	4	.08	103	2.06
orida	6,540	12	.18	62	.94
orgia	4,301	13	.30	116	2.69
waii	1,317	2	.15	5	.37
aho	1,034	0	0.00	1	.09
linois	9,028	6	.06	230	2.54
diana	3,072	18	.58	32	1.04
wa	1,903	2	.10	17	.89
nsas	1,781	1	.05	3	.16
ntucky	4,512	19	.42	71	1.57
uisiana	3,175	0	0.00	15	.47
ine	2,177	5	.22	10	.45
ryland	5,368	1	.01	25	.46
ssachusetts	7,546	4	.05	52	.68
chigan	6,684	39	.58	40	.59
nnesota	4,465	27	.60	40	.89
ssissippi	3,103	6	.19	8	.25

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[1] Figures in this table reflect only occupationally related EOA nrollments and are less than total EOA enrollments.

TABLE 46 Cont'd

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Agriculture	Percent of Total	Enrollment of EOA Trainees in Distributive Education	Percent of Total
Missouri	4,955	8	.16	8	.16
Montana	1,388	0	0.00	3	.21
Nebraska	1,898	8	.42	19	1.00
Nevada	904	13	1.43	24	2.65
New Hampshire	591	0	0.00	0	0.00
New Jersey	8,601	8	.09	27	.31
New Mexico	2,919	142	4.86	86	2.94
New York	19,909	17	.08	65	.32
N. Carolina	4,511	4	.08	9	.19
N. Dakota	646	0	0.00	0	0.00
Ohio	10,636	7	.06	49	.46
Oklahoma	4,480	3	.06	228	5.08
Oregon	4,341	33	.76	86	1.98
Pennsylvania	20,670	14	.06	106	.51
Rhode Island	1,654	31	1.87	9	.54
S. Carolina	2,335	0	0.00	5	.21
S. Dakota	1,072	0	0.00	34	3.17
Tennessee	4,366	20	.45	37	.84
Texas	13,901	22	.15	203	1.46
Utah	2,023	15	.74	3	.14
Vermont	999	0	0.00	0	0.00
Virginia	3,436	4	.11	42	.22
Washington	6,533	23	.35	61	.93
W. Virginia	5,127	48	.93	58	1.13
Wisconsin	4,728	34	.71	56	1.18
Wyoming	332	0	0.00	0	0.00
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA	NA	NA
Unident. States	5,777	1	.01	5	.08

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and Training Occupation", U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 47

Enrollment and Percent of EOA Trainees in Health Occupations and Occupational Home Economics, 1970-71

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Health Occupations	Percent of Total	Enrollment of EOA Trainees in Occupational Home Economics	Percent of Total
U.S. TOTAL	252,038[1]	6,072	2.40	911	.36
Alabama	668	38	5.68	36	5.38
Alaska	559	9	1.61	3	.53
Arizona	3,611	122	3.37	4	.11
Arkansas	4,851	247	5.09	14	.28
California	24,411	192	.78	10	.04
Colorado	4,494	99	2.20	40	.89
Connecticut	3,367	54	1.60	19	.56
Delaware	348	33	9.45	9	2.57
Dist. of C.	4,991	136	2.72	31	.62
Florida	6,540	506	7.73	16	.24
Georgia	4,301	150	3.48	26	.60
Hawaii	1,317	1	.07	1	.07
Idaho	1,034	13	1.25	0	0.00
Illinois	9,028	344	3.81	97	1.07
Indiana	3,072	117	3.80	8	.26
Iowa	1,903	65	3.41	3	.15
Kansas	1,781	104	5.83	2	.11
Kentucky	4,512	153	3.39	8	.17
Louisiana	3,175	173	5.44	0	0.00
Maine	2,177	46	2.11	5	.22
Maryland	5,368	233	4.34	71	1.32
Massachusetts	7,546	117	1.55	31	.41
Michigan	6,684	268	4.00	22	.32
Minnesota	4,465	62	1.38	1	.02
Mississippi	3,103	24	.77	7	.22

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[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 47 Cont'd

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Health Occupations	Percent of Total	Enrollment of EOA Trainees in Occupational Home Economics	Percent of Total
Missouri	4,955	111	2.24	10	.20
Montana	1,388	115	8.28	12	.86
Nebraska	1,898	70	3.68	28	1.47
Nevada	904	17	1.88	0	0.00
New Hampshire	591	0	0.00	0	0.00
New Jersey	8,601	88	1.02	7	.08
New Mexico	2,919	140	4.79	17	.58
New York	19,909	405	2.03	28	.14
N. Carolina	4,511	10	.22	3	.06
N. Dakota	646	11	1.70	0	0.00
Ohio	10,636	77	.72	3	.02
Oklahoma	4,480	47	1.04	10	.22
Oregon	4,341	173	3.98	17	.39
Pennsylvania	20,670	173	.83	27	.13
Rhode Island	1,654	34	2.05	12	.72
S. Carolina	2,335	16	.68	43	1.84
S. Dakota	1,072	23	2.14	0	0.00
Tennessee	4,366	142	3.25	14	.32
Texas	13,901	317	2.28	12	.08
Utah	2,023	6	.29	3	.14
Vermont	999	51	5.10	0	0.00
Virginia	3,436	135	3.92	7	.20
Washington	6,533	151	2.31	90	1.37
W. Virginia	5,127	208	4.05	51	.99
Wisconsin	4,728	187	3.95	46	.97
Wyoming	332	9	2.71	0	0.00
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA	NA	NA
Unident. States	5,777	50	.86	7	.12

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and Training Occupation", U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 48

Enrollment and Percent of EOA Trainees in Office Occupations and Technical Education, 1970-71

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Office Occupations	Percent of Total	Enrollment of EOA Trainees in Technical Education	Percent of Total
U.S. TOTAL	252,038[1]	15,951	6.32	759	.30
Alabama	668	18	2.69	1	.14
Alaska	559	47	8.40	0	0.00
Arizona	3,611	225	6.23	1	.02
Arkansas	4,851	369	7.60	8	.16
California	24,411	752	3.08	42	.17
Colorado	4,494	144	3.20	6	.13
Connecticut	3,367	88	2.61	2	.05
Delaware	348	50	14.32	7	2.00
Dist. of C.	4,991	1,599	32.03	28	.56
Florida	6,540	1,064	16.26	14	.21
Georgia	4,301	237	5.51	4	.09
Hawaii	1,317	4	.30	0	0.00
Idaho	1,034	33	3.19	0	0.00
Illinois	9,028	247	2.73	12	.13
Indiana	3,072	209	6.80	3	.09
Iowa	1,903	133	6.98	8	.42
Kansas	1,781	91	5.10	7	.39
Kentucky	4,512	373	8.26	17	.37
Louisiana	3,175	100	3.14	0	0.00
Maine	2,177	220	10.10	7	.32
Maryland	5,368	570	10.61	16	.29
Massachusetts	7,546	433	5.73	50	.66
Michigan	6,684	290	4.33	12	.17
Minnesota	4,465	449	10.05	11	.24
Mississippi	3,103	28	.90	0	0.00

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[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 48 Cont'd

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Office Occupations	Percent of Total	Enrollment of EOA Trainees in Technical Education	Percent of Total
Missouri	4,955	171	3.45	30	.60
Montana	1,388	123	8.86	1	.07
Nebraska	1,898	252	13.27	8	.42
Nevada	904	132	14.60	1	.11
New Hampshire	591	0	0.00	0	0.00
New Jersey	8,601	494	5.74	65	.75
New Mexico	2,919	396	13.56	17	.58
New York	19,909	783	3.93	32	.16
N. Carolina	4,511	76	1.68	1	.02
N. Dakota	646	12	1.85	0	0.00
Ohio	10,636	183	1.72	8	.07
Oklahoma	4,480	822	18.34	5	.11
Oregon	4,341	333	7.67	2[illegible]	.55
Pennsylvania	20,670	1,631	7.89	154	.74
Rhode Island	1,654	157	9.49	12	.72
S. Carolina	2,335	5	.21	0	0.00
S. Dakota	1,072	39	3.63	4	.37
Tennessee	4,366	214	4.90	5	.11
Texas	13,901	463	3.33	4	.02
Utah	2,023	40	1.97	7	.34
Vermont	999	7	.70	0	0.00
Virginia	3,436	257	7.47	18	.52
Washington	6,533	572	8.75	76	1.16
W. Virginia	5,127	415	8.09	17	.33
Wisconsin	4,728	524	11.08	14	.29
Wyoming	332	34	10.24	0	0.00
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA	NA	NA
Unident. States	5,777	43	.74	0	0.00

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and Training Occupation", U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 49

Enrollment and Percent of EOA Trainees in Trade and Industrial Education and Other Occupations, 1970-71

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Trade and Industry	Percent of Total	Enrollment of EOA Trainees in Other Occupations	Percent of Total
U.S. TOTAL	252,038[1]	17,532	6.95	207,244	82.22
Alabama	668	80	11.97	454	67.96
Alaska	559	19	3.39	471	84.25
Arizona	3,611	224	6.20	2,948	81.63
Arkansas	4,851	1,097	22.61	2,801	57.74
California	24,411	689	2.82	22,307	91.38
Colorado	4,494	203	4.51	3,972	88.38
Connecticut	3,367	19	.56	3,184	94.56
Delaware	348	38	10.88	210	60.17
Dist. of C.	4,991	582	11.66	2,508	50.25
Florida	6,540	580	8.86	4,286	65.63
Georgia	4,301	446	10.36	3,309	26.93
Hawaii	1,317	6	.45	1,298	98.55
Idaho	1,034	6	.58	981	94.87
Illinois	9,028	205	2.27	7,887	87.36
Indiana	3,072	118	3.84	2,567	83.56
Iowa	1,903	61	3.20	1,614	84.81
Kansas	1,781	50	2.80	1,523	85.51
Kentucky	4,512	800	17.73	3,071	68.06
Louisiana	3,175	47	1.48	2,840	89.44
Maine	2,177	225	10.33	1,659	76.20
Maryland	5,368	226	4.21	4,226	78.72
Massachusetts	7,546	345	4.57	6,514	86.32
Michigan	6,684	382	5.71	5,631	84.24
Minnesota	4,465	434	9.72	3,441	77.06
Mississippi	3,103	168	5.41	2,862	92.23

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[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 49 Cont'd

States	Enrollment of EOA Trainees in All Occupational Areas	Enrollment of EOA Trainees in Trade and Industry	Percent of Total	Enrollment of EOA Trainees in Other Occupations	Percent of Total
Missouri	4,955	218	4.39	4,399	88.77
Montana	1,388	73	5.25	1,061	65.44
Nebraska	1,898	123	6.48	1,390	73.23
Nevada	904	172	19.02	540	59.73
New Hampshire	591	0	0.00	591	100.00
New Jersey	8,601	283	3.29	7,629	88.69
New Mexico	2,919	510	17.47	1,611	55.19
New York	19,909	506	2.54	18,075	90.78
N. Carolina	4,511	80	1.77	4,328	95.94
N. Dakota	646	1	.15	622	96.28
Ohio	10,636	530	4.98	9,779	91.94
Oklahoma	4,480	881	19.66	2,484	55.44
Oregon	4,341	362	8.33	3,313	76.31
Pennsylvania	20,670	2,294	11.09	16,271	78.71
Rhode Island	1,654	218	13.18	1,181	71.40
S. Carolina	2,335	10	.42	2,256	96.61
S. Dakota	1,072	27	2.51	945	88.15
Tennessee	4,366	567	12.98	3,367	77.11
Texas	13,901	569	4.09	12,311	88.56
Utah	2,023	62	3.06	1,887	93.27
Vermont	999	29	2.90	912	91.29
Virginia	3,436	375	10.91	2,598	75.61
Washington	6,533	692	10.59	4,868	74.51
W. Virginia	5,121	1,237	24.12	3,093	60.32
Wisconsin	4,728	551	11.65	3,316	70.13
Wyoming	332	4	1.20	285	85.84
Guam	NA	NA	NA	NA	NA
Puerto Rico	NA	NA	NA	NA	NA
Virgin Isl.	NA	NA	NA	NA	NA
Am. Samoa	NA	NA	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA	NA	NA
Unident. States	5,777	108	1.86	5,563	96.29

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and Training Occupation", U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

Chapter VI

STUDENT AND TRAINEE CHARACTERISTICS

Increasing attention has been directed in recent years to equal employment opportunities for racial and ethnic minorities, women, the physically handicapped, and socially or economically disadvantaged persons. Since equal employment opportunities depend to a great extent on preparation and training, considerable emphasis has been placed on these groups in vocational education and manpower programs. Special services have been provided, special instruction, and in the case of most manpower programs, additional benefits. In vocational education, fifteen percent of the grants to the States must be used for special programs for the disadvantaged, and ten percent for special programs for the handicapped. The major thrust of all manpower training programs, excluding apprenticeship, is to assist the disadvantaged and handicapped who have become victims of unemployment.

It is essential, therefore, to know something about the participation by racial and ethnic groups, the disadvantaged and handicapped, and the sex of both vocational education students and manpower trainees. It would be highly beneficial to know also how many and which students in each category were being prepared for particular occupations, their relative success in getting jobs, and the advantages their education or training gave them in seeking employment. These details can be supplied only through an individual student enrollment data system combined with a good follow-up system. Since most States have neither, all that can be known is the extent and sometimes the direction of vocational education and manpower training in attempting to serve minority groups, the disadvantaged, and handicapped persons. The following tables are intended to show how these groups are involved in the various programs on the basis of data available.

Vocational Education

Tables 50A through 62B show the relative participation in vocational education nationally and in each of the States by the five major ethnic groups. Nationally 18.95 percent of all vocational education students in 1970-71 were Negro; 5.88 percent were Spanish-surnamed; 0.70 percent were Oriental; 0.49 percent were American Indian; and 73.76 percent were in all other groups (largely Caucasian). In separate tables the relationship of each ethnic group enrollment in vocational education to the total numbers of persons in the group is examined, and the percentage of each ethnic group in vocational education compared with the percentage of each group in the total population. It is readily apparent that in States with higher concentrations of one ethnic group or another, vocational education participation by that group is also correspondingly higher. Thus Negro students comprise higher percentages of the total enrollment in Southern States and the industrial

States of the upper Midwest and East. Spanish-surnamed Americans are represented in higher percentages of vocational education enrollments in New Mexico, Texas, California, and Arizona. Orientals are well represented in Hawaii, and American Indians in Alaska.

Negroes in vocational education. Tables 50A and 50B show the percent of the Negro population enrolled in vocational education programs in 1970-71 in the Nation and in each State. Individual States range from 0.4 percent, 0.5 percent and 0.8 percent in Wisconsin,[1] New Hampshire, and South Dakota respectively to nearly twelve percent in Iowa, Ohio, North Carolina, Delaware and Alaska; to 14.8 percent in Nebraska; and all the way to 35.3 percent in Illinois and 37.4 percent in Utah. (Enrollment data were not available for Connecticut, Indiana, Minnesota and West Virginia.)

These figures, while significant, are not as meaningful as those in Table 51 which shows Negro enrollments as a percent of all vocational education enrollments. For the United States as a whole this is approximately nineteen percent. The range is from the high of ninety-seven percent in the District of Columbia to the State high of fifty percent in South Carolina, to less than one percent in Hawaii, Idaho, Maine, Montana, New Hampshire, North Dakota, South Dakota, Vermont, and Wisconsin.[1]

In Tables 52A and 52B the percentages of Negro enrollments in vocational education are compared with the percent of Negroes in the population, which is the most valid indication of equality of opportunity. Nationally, with Negroes making up only eleven percent of the population compared with nearly nineteen percent of the enrollments in vocational education, this group is receiving a more than equal opportunity for occupational preparation compared with all other groups. In individual States the difference is as much as twenty-eight percentage points (Illinois), and it is twenty-six in the District of Columbia. Fourteen States, on the other hand, enroll a smaller percent of Negroes in vocational education than are found in their respective populations: Nevada (-.05), Idaho (-.09), Vermont (-.09), Hawaii (-.15), Maine (-.16), South Dakota (-.19), North Dakota (-.22), New Hampshire (-.28), Oklahoma (-.41), New Mexico (-.75), Arizona (-1.04), Colorado (-1.64), Georgia (-2.09), and Wisconsin (-2.66).[1]

This shows a wide disparity in the extent to which Negro students are receiving skill training in the schools. In seven of the fourteen States with negative figures less than one percent of the population are Negroes; therefore, the percentages have virtually no significance. But this is not true of the others, especially Georgia,

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[1] The figures from Wisconsin represent only secondary students. Post-secondary and adult figures were not available.

TABLE 50A

Enrollment of Negro Vocational Education Students as a Percent of Total Negro Population, in Forty-six States and the District of Columbia, 1970-71

States	Total Negro Population	Total Negro Vocational Education Enrollment	Percent of Total Negro Population Enrolled in Vocational Enrollment
TOTAL	21,939,438	1,835,871[1,2]	8.4
Alabama	903,467	59,288	6.6
Alaska	8,911	1,056	11.9
Arizona	53,344	1,739	3.3
Arkansas	352,445	23,163	6.6
California	1,400,143	113,278	8.1
Colorado	66,411	1,304	2.0
Connecticut	--	NA	NA
Delaware	78,276	9,226	11.8
Dist. of C.	537,712	10,810	2.0
Florida	1,041,651	85,903	8.2
Georgia	1,187,149	60,831	5.1
Hawaii	7,573	370	4.9
Idaho	2,130	62	2.9
Illinois	1,425,674	503,415	35.3
Indiana	--	NA	NA
Iowa	32,596	3,600	11.0
Kansas	106,977	7,045	6.6
Kentucky	230,793	24,278	10.5
Louisiana	1,086,832	61,599	5.7
Maine	2,800	29	1.0
Maryland	699,479	31,322	4.5
Massachusetts	175,817	5,414	3.1
Michigan	991,066	47,290	4.8
Minnesota	--	NA	NA
Mississippi	815,770	40,348	4.9

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[1] Ethnic enrollments as shown on U.S. Office of Education Form 3138, Section III, are estimated, therefore totals of enrollment will not equal total vocational education enrollment.

[2] Total does not include Guam, Puerto Rico, Virgin Islands, American Samoa, and Pacific Trust Territories, so total does not match totals including these territories.

TABLE 50A Cont'd

States	Total Negro Population	Total Negro Vocational Education Enrollment	Percent of Total Negro Population Enrolled in Vocational Education
Missouri	480,172	25,039	5.2
Montana	1,995	80	4.0
Nebraska	39,911	5,898	14.8
Nevada	27,762	1,052	3.8
New Hampshire	2,505	13	.5
New Jersey	770,292	55,381	7.2
New Mexico	19,555	617	3.2
New York	2,168,949	124,717	5.8
N. Carolina	1,126,478	128,470	11.4
N. Dakota	2,494	48	1.9
Ohio	970,477	107,882	11.1
Oklahoma	171,892	6,569	3.8
Oregon	26,308	1,855	7.1
Pennsylvania	1,016,514	37,201	3.7
Rhode Isl.	25,338	561	2.2
S. Carolina	789,041	50,736	6.4
S. Dakota	1,627	13	.8
Tennessee	621,261	34,709	5.6
Texas	1,399,005	92,376	6.6
Utah	6,617	2,476	37.4
Vermont	761	12	1.6
Virginia	861,368	62,429	7.2
Washington	71,308	5,704	8.0
W. Virginia	--	NA[3]	NA
Wisconsin	128,224	460	.4
Wyoming	2,568	203	7.9

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[3] This figure represents only secondary students.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 50B

Rank Order of States by Percent of Negro Population
Enrolled in Vocational Education, 1970-71

U.S. MEAN = 8.2

State	Percent	State	Percent
Utah	37.4	Michigan	4.8
Illinois	35.3	Maryland	4.5
Nebraska	14.8	Montana	4.0
Alaska	11.9	Oklahoma	3.8
Delaware	11.8	Nevada	3.8
North Carolina	11.4	Pennsylvania	3.7
Ohio	11.1	Arizona	3.3
Iowa	11.0	New Mexico	3.2
Kentucky	10.5	Massachusetts	3.1
Florida	8.2	Idaho	2.9
California	8.1	Rhode Island	2.2
Washington	8.0	Dist. of Columbia	2.0
Wyoming	7.9	Colorado	2.0
Virginia	7.2	North Dakota	1.9
New Jersey	7.2	Vermont	1.6
Oregon	7.1	Maine	1.0
Texas	6.6	South Dakota	.8
Kansas	6.6	New Hampshire	.5
Arkansas	6.6	Wisconsin	.4
Alabama	6.6	West Virginia	NA
South Carolina	6.4	Minnesota	NA
New York	5.8	Indiana	NA
Louisiana	5.7	Connecticut	NA
Tennessee	5.6		
Missouri	5.2		
Georgia	5.1		
Mississippi	4.9		
Hawaii	4.9		

TABLE 51

Enrollment of Negro Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Negroes in Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Negro Vocational Education Enrollments				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,700,474[1]	1,334,672[1]	144,813	359,047	1,838,532	18.95
Alabama	153,515	42,203	4,191	12,894	59,288	38.62
Alaska	13,228	685	64	307	1,056	7.98
Arizona	88,471	956	552	231	1,739	1.96
Arkansas	103,907	16,497	1,000	5,666	23,163	22.29
California	1,218,055	51,514	31,486	30,280	113,278	9.29
Colorado	95,309	982	256	66	1,304	1.3[illegible]
Connecticut	--	NA	NA	NA	NA	NA
Delaware	31,211	8,869	68	289	9,226	29.56
Dist. of C.	11,148	5,760	1,106	3,944	10,810	96.96
Florida	457,454	56,130	8,370	21,403	85,903	18.77
Georgia	255,887	46,496	8,134	6,201	60,831	23.77
Hawaii	44,502	286	24	60	370	.83
Idaho	30,420	49	12	1	62	.20
Illinois	1,227,842	458,108	25,674	19,633	503,415	40.99
Indiana	--	NA	NA	NA	NA	NA
Iowa	127,911	1,670	839	1,091	3,600	2.81
Kansas	102,738	5,178	696	1,171	7,045	6.85
Kentucky	145,324	14,928	1,055	8,295	24,278	16.70
Louisana	174,403	50,496	5,474	5,629	61,599	35.31
Maine	23,464	22	1	6	29	.12
Maryland	162,763	26,903	1,960	2,459	31,322	19.24
Massachusetts	121,950	4,996	136	282	5,414	4.43
Michigan	320,055	33,149	5,595	8,546	47,290	14.77
Minnesota	--	NA	NA	NA	NA	NA
Mississippi	106,512	29,355	2,081	8,912	40,348	37.88

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[1] Total vocational education enrollment will not match the total on the other tables as students below grade nine are included, and five States were unable to provide ethnic enrollments, and Section III of U.S. Office of Education Form 3138, from which this was compiled, is estimated.

TABLE 51 Cont'd

States	Total Vocational Education Enrollment	Negro Vocational Education Enrollments				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
Missouri	150,256	16,683	3,201	5,155	25,039	16.66
Montana	27,328	77	3	0	80	.29
Nebraska	65,318	1,358	540	4,000	5,898	9.02
Nevada	18,655	849	81	122	1,052	5.63
New Hampshire	23,082	9	4	NA	13	.05
New Jersey	329,787	37,576	3,250	14,555	55,381	16.79
New Mexico	52,605	392	161	64	617	1.17
New York	831,822	96,687	5,749	22,281	124,717	14.99
N. Carolina	415,849	81,322	11,176	35,922	128,470	30.87
N. Dakota	26,215	38	2	8	48	.18
Ohio	416,977	43,267	2,251	62,364	107,882	25.87
Oklahoma	104,223	3,846	393	2,330	6,569	6.30
Oregon	111,824	1,074	221	560	1,855	1.65
Pennsylvania	337,835	23,051	3,613	10,537	37,201	11.01
Rhode Island	18,370	399	25	137	561	3.05
S. Carolina	102,372	38,913	1,614	10,209	50,736	49.56
S. Dakota	25,373	13	0	0	13	.05
Tennessee	143,572	24,296	3,433	6,980	34,709	24.17
Texas	613,355	49,838	6,372	36,166	92,376	15.06
Utah	108,799	2,082	185	209	2,476	2.27
Vermont	13,441	7	0	5	12	.08
Virginia	301,904	51,429	2,231	8,769	62,429	20.67
Washington	230,985	2,972	1,478	1,254	5,704	2.46
W. Virginia	--	NA	NA	NA	NA	NA
Wisconsin	187,637	460	NA	NA	460	.24
Wyoming	16,511	166	31	6	203	1.22
Guam	3,033	0	0	0	0	0.00
Virgin Isl.	2,661	2,636	25	0	2,661	100.00
Am. Samoa	1,702	0	0	0	0	0.00
Pac. Tr. Terr.	2,914	0	0	0	0	0.00

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 52A

Difference Between Percent of Negroes in Total Vocational Education and Percent of Negroes in Total Population, 1970-71

States	Total Population	Total Negro Population	Negroes as a Percent of Total Population	Total Negro Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Negroes in Vocational Education and Percent of Negroes in Total Population
U.S. TOTAL	203,220,097	22,580,289	11.12	18.95	7.83
Alabama	3,444,165	903,467	26.23	38.62	12.39
Alaska	300,382	8,911	2.96	7.98	5.02
Arizona	1,773,420	53,344	3.00	1.96	-1.04
Arkansas	1,923,295	352,445	18.32	22.29	3.97
California	19,953,134	1,400,143	7.01	9.29	2.28
Colorado	2,207,259	66,411	3.00	1.36	-1.64
Connecticut	3,031,709	181,177	5.97	NA	NA
Delaware	548,104	78,276	14.28	29.56	15.28
Dist. of C.	756,510	537,712	71.07	96.96	25.89
Florida	6,789,443	1,041,651	15.34	18.77	3.43
Georgia	4,589,575	1,187,149	25.86	23.77	-2.09
Hawaii	769,913	7,573	.98	.83	-.15
Idaho	712,567	2,130	.29	.20	-.09
Illinois	11,113,976	1,425,674	12.82	40.99	28.17
Indiana	5,193,669	357,464	6.88	NA	NA
Iowa	2,824,376	32,596	1.15	2.81	1.66
Kansas	2,246,578	106,977	4.76	6.85	2.09
Kentucky	3,218,706	230,793	7.17	16.70	9.53
Louisiana	3,641,306	1,086,832	29.84	35.31	5.47
Maine	992,048	2,800	.28	.12	-.16
Maryland	3,922,399	699,479	17.83	19.24	1.41
Massachusetts	5,689,170	175,817	3.09	4.43	1.34
Michigan	8,875,083	991,066	11.16	14.77	3.61
Minnesota	3,804,971	34,868	91	NA	NA
Mississippi	2,216,912	815,770	36.79	37.88	1.09

TABLE 52A Cont'd

States	Total Population	Total Negro Population	Negroes as a Percent of Total Population	Total Negro Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Negroes in Vocational Education and Percent of Negroes in Total Population
Missouri	4,676,501	480,172	10.26	16.66	6.40
Montana	694,409	1,995	.28	.29	.01
Nebraska	1,483,493	39,911	2.69	9.02	6.33
Nevada	488,738	27,762	5.68	5.63	-.05
New Hampshire	737,681	2,505	.33	.05	-.28
New Jersey	7,168,164	770,929	10.74	16.79	6.05
New Mexico	1,016,000	19,555	1.92	1.17	-.75
New York	18,241,266	2,168,949	11.89	14.99	3.10
N. Carolina	5,082,059	1,126,478	22.16	30.89	8.73
N. Dakota	617,761	2,494	.40	.18	-.22
Ohio	10,652,017	970,477	9.11	25.87	16.76
Oklahoma	2,559,229	171,892	6.71	6.30	-.41
Oregon	2,091,385	26,308	1.25	1.65	.40
Pennsylvania	11,793,909	1,016,514	8.61	11.01	2.40
Rhode Isl.	946,725	25,338	2.67	3,05	.38
S. Carolina	2,590,516	789,041	30.45	49.56	19.11
S. Dakota	665,507	1,627	.24	.05	-.19
Tennessee	3,923,687	621,261	15.83	24.17	8.34
Texas	11,196,730	1,399,005	12.49	15.06	2.57
Utah	1,059,273	6,617	.62	2.27	1.65
Vermont	444,330	761	.17	.08	-.09
Virginia	4,648,494	861,368	18.53	20.67	2.14
Washington	3,409,169	71,308	2.09	2.46	.37
W. Virginia	1,744,237	67,342	3.86	NA	NA
Wisconsin	4,417,731	128,224	2.90	.24	-2.66
Wyoming	332,416	2,568	.77	1.22	.45

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 52B

Rank Order of States by Difference of Percent of Negroes in Vocational Education and Percent of Negroes in Total Population, 1970-71

U.S. MEAN = 7.83

State	Percent	State	Percent
Illinois	28.17	Wyoming	.45
Dist. of Columbia	25.89	Oregon	.40
South Carolina	19.11	Rhode Island	.38
Ohio	16.76	Washington	.37
Delaware	15.28	Montana	.01
Alabama	12.39	Nevada	-.05
Kentucky	9.53	Idaho	-.09
North Carolina	8.73	Vermont	-.09
Tennessee	8.34	Hawaii	-.15
Missouri	6.40	Maine	-.16
Nebraska	6.33	South Dakota	-.19
New Jersey	6.05	North Dakota	-.22
Louisiana	5.47	New Hampshire	-.28
Alaska	5.02	Oklahoma	-.41
Arkansas	3.97	New Mexico	-.75
Michigan	3.61	Arizona	-1.04
Florida	3.43	Colorado	-1.64
New York	3.10	Georgia	-2.09
Texas	2.57	Wisconsin	-2.66
Pennsylvania	2.40	Connecticut	NA
California	2.28	Indiana	NA
Virginia	2.14	Minnesota	NA
Kansas	2.09	W. Virginia	NA
Iowa	1.66		
Utah	1.65		
Maryland	1.41		
Massachusetts	1.34		
Mississippi	1.09		

where twenty-six percent of the population is Negro. How does it happen that in Illinois, with roughly the same percent of Negroes in its population as in Michigan, the percent of Negroes enrolled in vocational education is nearly three times as high? Similarly, Alabama, Georgia, Louisiana, North Carolina, and South Carolina all have roughly the same percent of Negroes in their population; yet the difference in percentage points between Negroes in the population and Negroes enrolled in vocational education ranges from 19.11 in South Carolina to -2.09 in Georgia. These questions must be explored in greater depth, and Project Baseline will attempt to do so in subsequent National reports.

American Indians in vocational education. Tables 53A and 53B show the percent of the American Indian population enrolled in vocational education nationwide and in each State. Nationally the figure is 7.0 percent, only a little under that of the Negro population. Variations among the States are greater, resulting primarily from the very small percent of American Indians in the population, and their geographic locations. Thus Oklahoma, Arizona, and California -- with the Nation's highest American Indian populations -- have relatively low percentages enrolled in vocational education. Kentucky, with a relative low American Indian population, has 56.9 percent in vocational education programs.

States in which the American Indian population is well represented in vocational education include Alaska, with 37.7 percent of an American Indian population numbering 16,000; Illinois, with 26.9 percent of an American Indian population of 11,000; and New Mexico, with 24.4 percent of an American Indian population of 19,500. States in which vocational education is reaching relatively few American Indian students include Arizona, with 1.9 percent of a population of nearly 96,000; California, with 5.4 percent of 91,000; Michigan, with 2.7 percent of nearly 17,000; North Dakota, with 2.9 percent of 14,000; Oklahoma, with 5.4 percent of 98,000; South Dakota, with 1.4 percent of 32,000; Texas, with 3.4 percent of nearly 18,000; and Wisconsin,[1] with 0.5 percent of nearly 19,000. On the whole, it appears that in most States with sufficiently large American Indian populations to constitute a distinct minority, there is greater neglect here than of the Negro minority. Utah remains the outstanding exception, with both its Negro and American Indian populations having substantially higher percentages of students enrolled in vocational education than do most of the other States. (Data were not available from Connecticut, Indiana, Minnesota, New Hampshire, New Jersey, New York, and West Virginia.)

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[1] The figures from Wisconsin represent only secondary students. Post-secondary and adult figures were not available.

TABLE 53A

Enrollment of American Indian Vocational Education Students as a Percent of Total American Indian Population, in Forty-three States and the District of Columbia, 1970-71

States	Total American Indian Population	Total American Indians Enrolled in Vocational Education	Percent of Total American Indian Population Enrolled in Vocational Education
TOTAL	671,53C	47,178[1]	7.0
Alabama	2,443	147	6.0
Alaska	16,276	6,130	37.7
Arizona	95,812	1,815	1.9
Arkansas	2,014	65	3.2
California	91,018	4,872	5.4
Colorado	8,836	274	3.1
Connecticut	--	NA	NA
Delaware	656	4	.6
Dist. of C.	956	0	0.0
Florida	6,677	417	6.2
Georgia	2,347	0	0.0
Hawaii	1,126	71	6.3
Idaho	2,130	403	18.9
Illinois	11,413	3,069	26.9
Indiana	--	NA	NA
Iowa	2,992	152	5.1
Kansas	8,672	314	3.6
Kentucky	1,531	871	56.9
Louisiana	5,294	73	1.4
Maine	2,195	20	.9
Maryland	4,239	461	10.9
Massachusetts	4,475	63	1.4
Michigan	16,854	449	2.7
Minnesota	--	NA	NA
Mississippi	4,113	88	2.1

[1] Ethnic enrollments as shown on U.S. Office of Education Form 3138, Section III, are estimated, so total of ethnic enrollment will not equal total vocational education enrollment

TABLE 53A Cont'd

States	Total American Indian Population	Total American Indian Enrolled in Vocational Education	Percent of Total American Indian Population Enrolled in Vocational Education
Missouri	5,405	15	.3
Montana	27,130	2,175	8.0
Nebraska	6,624	98	1.5
Nevada	7,933	563	7.1
New Hampshire	--	NA	NA
New Jersey	--	NA	NA
New Mexico	19,555	4,777	24.4
New York	--	NA	NA
N. Carolina	44,406	4,427	10.0
N. Dakota	14,369	412	2.9
Ohio	6,654	845	12.7
Oklahoma	98,468	5,312	5.4
Oregon	13,510	1,137	8.4
Pennsylvania	5,533	0	0.0
Rhode Island	1,390	0	0.0
S. Carolina	2,241	47	2.1
S. Dakota	32,365	439	1.4
Tennessee	2,276	203	8.9
Texas	17,957	606	3.4
Utah	11,273	2,600	23.1
Vermont	229	7	3.1
Virginia	4,853	78	1.6
Washington	33,386	3,155	9.5
W. Virginia	--	NA	NA
Wisconsin	18,924	100[2]	.5
Wyoming	4,980	424	8.5

[2] This figure represents only secondary students.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC)1)-B1, U.S. Summary.

TABLE 53B

Rank Order of States by Percent of American Indian Population Enrolled in Vocational Education, 1970-71

U.S. MEAN = 6.4

State	Percent
Kentucky	56.9
Alaska	37.7
Illinois	26.9
New Mexico	24.4
Utah	23.1
Idaho	18.9
Ohio	12.7
Maryland	10.9
North Carolina	10.0
Washington	9.5
Tennessee	8.9
Wyoming	8.5
Oregon	8.4
Montana	8.0
Nevada	7.1
Hawaii	6.3
Florida	6.2
Alabama	6.0
California	5.4
Oklahoma	5.4
Iowa	5.1
Kansas	3.6
Texas	3.4
Arkansas	3.2
Colorado	3.1
Vermont	3.1
North Dakota	2.9
Michigan	2.7
Mississippi	2.1
South Carolina	2.1
Arizona	1.9
Virginia	1.6
Nebraska	1.5
Louisiana	1.4
Massachusetts	1.4
South Dakota	1.4
Maine	.9
Delaware	.6
Wisconsin	.5
Missouri	.3
Dist. of Columbia	0.0
Georgia	0.0
Pennsylvania	0.0
Rhode Island	0.0
Connecticut	NA
Indiana	NA
Minnesota	NA
New Hampshire	NA
New Jersey	NA
New York	NA
West Virginia	NA

TABLE 54

Enrollment of American Indian Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of American Indians in Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	American Indian Vocational Education Enrollment				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	8,845,570	31,993[1]	5,270	9,915	47,178	.49
Alabama	153,515	65	0	82	147	.09
Alaska	13,228	4,150	348	1,632	6,130	46.34
Arizona	88,471	1,284	366	165	1,815	2.05
Arkansas	103,907	62	3	0	65	.06
California	1,218,055	2,216	1,354	1,302	4,872	.39
Colorado	95,309	184	85	5	274	.28
Connecticut	—	NA	NA	NA	NA	NA
Delaware	31,211	4	0	0	4	.01
Dist. of C.	11,148	0	0	0	0	0.00
Florida	457,454	180	56	181	417	.09
Georgia	255,887	0	0	0	0	0.00
Hawaii	44,502	43	9	19	71	.15
Idaho	30,420	318	40	45	403	1.32
Illinois	1,227,842	2,792	157	120	3,069	.24
Indiana	—	NA	NA	NA	NA	NA
Iowa	127,911	54	18	80	152	.11
Kansas	102,738	165	48	101	314	.30
Kentucky	145,324	547	36	288	871	.59
Louisiana	174,403	53	5	15	73	.04
Maine	23,464	16	1	3	20	.08
Maryland	162,763	404	19	38	461	.28
Massachusetts	121,950	35	22	6	63	.05
Michigan	320,055	263	51	135	449	.14
Minnesota	—	NA	NA	NA	NA	NA
Mississippi	106,512	23	7	58	88	.08

[1] Total vocational education enrollment on this table will not match on other tables as: (1) students below grade nine are included; (2) seven States could not provide ethnic enrollment data; and (3) Section III of U.S. Office of Education Form 3138 is estimated.

TABLE 54 Cont'd

States	Total Vocational Education Enrollment	American Indian Vocational Education Enrollment				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
Missouri	150,256	15	0	0	15	0.00
Montana	27,328	1,975	175	25	2,175	7.95
Nebraska	65,318	64	34	0	98	.15
Nevada	18,655	481	25	57	563	3.01
New Hampshire	--	NA	NA	NA	NA	NA
New Jersey	329,787	NA	NA	NA	NA	NA
New Mexico	52,605	4,339	277	161	4,777	9.08
New York	--	NA	NA	NA	NA	NA
N. Carolina	415,849	2,505	445	1,477	4,437	1.06
N. Dakota	26,215	330	59	23	412	1.57
Ohio	416,977	420	8	417	845	.20
Oklahoma	104,223	2,914	249	2,149	5,312	5.09
Oregon	111,824	639	167	331	1,137	1.01
Pennsylvania	337,835	0	0	0	0	0.00
Rhode Island	18,370	0	0	0	0	0.00
S. Carolina	102,372	47	0	0	47	.04
S. Dakota	25,373	361	42	36	439	1.73
Tennessee	143,572	160	29	14	203	.14
Texas	613,355	326	42	238	606	.09
Utah	108,799	2,276	218	106	2,600	2.38
Vermont	13,441	7	0	0	7	.05
Virginia	301,904	49	19	10	78	.02
Washington	230,985	1,713	849	593	3,155	1.36
W. Virginia	--	NA	NA	NA	NA	NA
Wisconsin	187,637	100	NA	NA	100	.05
Wyoming	16,511	414	7	3	424	2.56
Guam	3,033	0	0	0	0	0.00
Puerto Rico	--	NA	NA	NA	NA	NA
Virgin Isl.	2,661	0	0	0	0	0.00
Am. Samoa	1,702	0	0	0	0	0.00
Pac. Tr. Terr.	2,914	0	0	0	0	0.00

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.

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TABLE 55A

Difference Between Percent of American Indians in Total Vocational Education and Percent of American Indians in Total Population, 1970-71

States	Total Population	Total American Indian Population	American Indian Population as a Percent of Total Population	Total American Indian Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of American Indians in Vocational Education and American Indians in Total Population
U.S. TOTAL	203,220,097	734,940	.36	.49	.13
Alabama	3,444,165	2,443	.07	.09	.02
Alaska	300,382	16,276	5.41	46.34	40.93
Arizona	1,773,420	95,812	5.40	2.05	-3.35
Arkansas	1,923,295	2,014	.10	.06	-.04
California	19,953,134	91,018	.45	.39	-.06
Colorado	2,207,259	8,836	.40	.28	-.12
Connecticut	3,031,709	2,222	.07	NA	NA
Delaware	548,104	656	.11	.01	-.10
Dist. of C.	756,510	956	.12	.00	-.12
Florida	6,789,443	6,677	.09	.09	.00
Georgia	4,589,575	2,347	.05	.00	-.05
Hawaii	769,913	1,126	.15	.15	0.00
Idaho	712,567	2,130	.29	1.32	1.03
Illinois	11,113,976	11,413	.10	.24	.14
Indiana	5,193,669	3,887	.07	NA	NA
Iowa	2,824,376	2,992	.10	.11	.01
Kansas	2,246,578	8,672	.38	.30	-.08
Kentucky	3,218,706	1,531	.04	.59	.55
Louisiana	3,641,306	5,294	.14	.04	-.10
Maine	992,048	2,195	.22	.08	-.14
Maryland	3,922,399	4,239	.10	.28	.18
Massachusetts	5,689,170	4,475	.07	.05	-.02
Michigan	8,875,083	16,854	.18	.14	-.04
Minnesota	3,804,971	23,128	.60	NA	NA
Mississippi	2,216,912	4,113	.18	.08	-.10

TABLE 55A Cont'd

States	Total Population	Total American Indian Population	American Indian Population as a Percent of Total Population	Total American Indian Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of American Indians in Vocational Education and American Indians in Total Population
Missouri	4,676,501	5,405	.11	.00	-.11
Montana	694,409	27,130	3.90	7.95	4.05
Nebraska	1,483,493	6,624	.44	.15	-.29
Nevada	488,738	7,933	1.62	3.01	1.39
New Hampshire	737,681	361	.04	NA	NA
New Jersey	7,168,164	4,706	.06	NA	NA
New Mexico	1,016,000	19,555	1.92	9.08	7.16
New York	18,241,266	28,355	.15	NA	NA
N. Carolina	5,082,059	44,406	.87	1.06	.19
N. Dakota	617,761	14,369	2.32	1.57	-.75
Ohio	10,652,017	6,654	.06	.20	.14
Oklahoma	2,559,229	98,468	3.84	5.09	1.25
Oregon	2,091,385	13,510	.64	1.01	.37
Pennsylvania	11,793,909	5,533	.04	.00	-.04
Rhode Isl.	946,725	1,390	.14	.00	-.14
S. Carolina	2,590,516	2,241	.08	.04	-.04
S. Dakota	665,507	32,365	4.86	1.73	-3.13
Tennessee	3,923,687	2,276	.05	.14	.09
Texas	11,196,730	17,957	.16	.09	-.07
Utah	1,059,273	11,273	1.06	2.38	1.32
Vermont	444,330	229	.05	.05	.00
Virginia	4,648,494	4,853	.10	.02	-.08
Washington	3,409,169	33,386	.97	1.36	.39
W. Virginia	1,744,237	751	.04	NA	NA
Wisconsin	4,417,731	18,924	.42	.05	-.37
Wyoming	332,416	4,980	1.49	2.56	1.07

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1. U.S. Summary.
U.S. Office of Education Form 3138 U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 55B

Rank Order of States by Difference of Percent of American Indians in Vocational Education and Percent of American Indians in Total Population, 1970-71

U.S. MEAN = .13

State	Percent	State	Percent
Alaska	40.93	Texas	-.06
New Mexico	7.16	Kansas	-.08
Montana	4.05	Virginia	-.08
Nevada	1.39	Delaware	-.10
Utah	1.32	Louisiana	-.10
Oklahoma	1.25	Mississippi	-.10
Wyoming	1.07	Missouri	-.11
Idaho	1.03	Colorado	-.12
Kentucky	.55	Dist. of Columbia	-.12
Washington	.39	Maine	-.14
Oregon	.37	Rhode Island	-.14
North Carolina	.19	Nebraska	-.29
Maryland	.18	Wisconsin	-.37
Illinois	.14	North Dakota	-.75
Ohio	.14	South Dakota	-3.13
Tennessee	.09	Arizona	-3.35
Alabama	.02	Connecticut	NA
Iowa	.01	Indiana	NA
Florida	0.00	Minnesota	NA
Hawaii	0.00	New Hampshire	NA
Vermont	0.00	New Jersey	NA
Massachusetts	-.02	New York	NA
Arkansas	-.04	West Virginia	NA
Michigan	-.04		
Pennsylvania	-.04		
South Carolina	-.04		
Georgia	-.05		
California	-.06		

The differences between percent of American Indians in vocational education and in the total population range from forty-one percentage points in Alaska to -3 in Arizona and South Dakota. In Arizona this is the result primarily of the population pattern. American Indians there are located for the most part on large reservations served to a great extent by Bureau of Indian Affairs schools and therefore are not included in these figures.

Orientals in vocational education. The percent of the Oriental population enrolled in vocational education nationally is nearly identical with that of the American Indian population, 6.7 percent. The range among individual States is also very nearly the same, from a low of zero in Georgia, New Hampshire, Pennsylvania, and South Carolina to a high of fifty-eight percent in Alaska. As with other groups, the concentration of the Oriental population in each State has something to do with the percent of students enrolled in vocational education, Alaska, for instance, has only a few more than 1,000 Orientals and fifty-eight percent of them enrolled. Arkansas, with approximately the same number, has 37.1 percent in vocational education. On the other hand, Delaware, Montana, and New Hampshire, with approximately the same total number of Orientals, have only 3.9 percent, 0.2 percent and 0.0 percent respectively enrolled in vocational education.

The States having substantial Oriental populations are California with 383,000; Hawaii with nearly 270,000; and New York with 102,000. In California the percentage of the Oriental population enrolled in vocational education was 7.0 percent, and in Hawaii, 7.5 percent; the information was not available for New York. Other States in which Orientals make up a sizeable minority include Illinois with 31,000 (19.3 percent enrolled); Washington with 29,000 (12.2 percent); Massachusetts with 18,000 (2.1 percent); New Jersey with nearly 15,000 (6.6 percent); Texas with 14,000 (8.5 percent); Pennsylvania with 12,000 (0.0 percent); Michigan with 11,000 (9.4 percent); Ohio with 11,000 (6.4 percent); Oregon with 11,000 (6.3 percent); and Maryland with 10,000 (5.7 percent). These States are all close to the national average, except Illinois and Washington are significantly higher, and Pennsylvania significantly lower. (Data were not available from Connecticut, Indiana, Minnesota, New York, and West Virginia.)

The percent of Orientals in vocational education is slightly higher nationally than the percent in the population -- by 0.19 percentage points. In individual States it ranges from a high of 10.39 in Hawaii to a low of -0.17 in Arizona; in the District of Columbia the difference is -0.28. Only one State besides Hawaii-- Alaska -- has a significantly higher percent of Orientals in its vocational education enrollment than in its population, by 4.63 percentage points. But there are only 1,144 Orientals in Alaska's population.

TABLE 56A

Enrollment of Oriental Vocational Education Students as a Percent of Total Oriental Population, 1970-71

States	Total Oriental Population	Total Orientals Enrolled in Vocational Education	Percent of Total Oriental Population Enrolled in Vocational Education
U.S. TOTAL	1,026,352	68,263[1]	6.7
Alabama	1,705	430	25.2
Alaska	1,144	663	58.0
Arizona	6,272	166	2.6
Arkansas	1,330	494	37.1
California	383,411	26,796	7.0
Colorado	9,320	545	5.8
Connecticut	3,830	NA	NA
Delaware	918	36	3.9
Dist. of C.	3,233	16	.5
Florida	7,223	496	6.9
Georgia	3,420	0	0.0
Hawaii	269,346	20,193	7.5
Idaho	2,753	313	11.4
Illinois	31,773	6,139	19.3
Indiana	4,394	NA	NA
Iowa	2,002	64	3.2
Kansas	2,817	145	5.1
Kentucky	1,653	162	9.8
Louisiana	2,463	142	5.8
Maine	554	14	2.5
Maryland	10,253	582	5.7
Massachusetts	18,405	378	2.1
Michigan	11,628	1,090	9.4
Minnesota	5,025	NA	NA
Mississippi	1,902	19	1.0

[1] Ethnic enrollments as shown on U.S. Office of Education Form 3138, Section III, are estimated, therefore total ethnic enrollments will not equal total vocational education enrollments.

TABLE 56A Cont'd

States	Total Oriental Population	Total Orientals Enrolled in Vocational Education	Percent of Total Oriental Population Enrolled in Vocational Education
Missouri	5,197	395	7.6
Montana	863	2	.2
Nebraska	1,865	21	1.1
Nevada	2,042	79	3.9
New Hampshire	780	0	0.0
New Jersey	14,914	985	6.6
New Mexico	1,503	145	9.6
New York	101,729	NA	NA
N. Carolina	3,359	190	5.7
N. Dakota	404	15	3.7
Ohio	10,860	695	6.4
Oklahoma	2,407	87	4.1
Oregon	11,657	739	6.3
Pennsylvania	12,514	0	0.0
Rhode Isl.	1,722	36	2.1
S. Carolina	1,347	0	0.0
S. Dakota	384	9	2.3
Tennessee	2,770	66	2.4
Texas	14,172	1,204	8.5
Utah	5,994	951	15.9
Vermont	307	5	1.6
Virginia	6,305	93	1.5
Washington	29,536	3,594	12.2
W. Virginia	741	NA	NA
Wisconsin	5,348	15[2]	.3
Wyoming	858	54	6.3

[2] This figure represents only secondary students.

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 56B

Rank Order of States by Percent of Oriental Population Enrolled in Vocational Education, 1970-71

U.S. MEAN = 6.7

State	Percent	State	Percent
Alaska	58.0	Iowa	3.2
Arkansas	37.1	Arizona	2.6
Alabama	25.2	Maine	2.5
Illinois	19.3	Tennessee	2.4
Utah	15.9	South Dakota	2.3
Washington	12.2	Rhode Island	2.1
Idaho	11.4	Massachusetts	[illegible]
Kentucky	9.8	Vermont	[illegible]
New Mexico	9.6	Virginia	1.5
Michigan	9.4	Nebraska	1.1
Texas	8.5	Mississippi	1.0
Missouri	7.6	Dist. of Columbia	.5
Hawaii	7.5	Wisconsin	.3
California	7.0	Montana	.2
Florida	6.9	South Carolina	0.0
New Jersey	6.6	Pennsylvania	0.0
Ohio	6.4	New Hampshire	0.0
Wyoming	6.3	Georgia	0.0
Oregon	6.3	West Virginia	NA
Louisiana	5.8	New York	NA
Colorado	5.8	Minnesota	NA
North Carolina	5.7	Indiana	NA
Maryland	5.7	Connecticut	NA
Kansas	5.1		
Oklahoma	4.1		
Nevada	3.9		
Delaware	3.9		
North Dakota	3.7		

TABLE 57

Enrollment of Oriental Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Orientals in Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Oriental Vocational Education Enrollment				Oriental Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,700,474[1]	40,453[1]	12,717	15,093	68,263	.70
Alabama	153,515	430	0	0	430	.28
Alaska	13,228	454	42	167	663	5.01
Arizona	88,471	76	80	10	166	.18
Arkansas	103,907	284	6	204	494	.47
California	1,218,055	12,186	7,447	7,163	26,796	2.19
Colorado	95,309	295	86	164	545	.57
Connecticut	--	NA	NA	NA	NA	NA
Delaware	31,211	36	0	0	36	.11
Dist. of C.	11,148	8	0	8	16	.14
Florida	457,454	181	151	164	496	.10
Georgia	255,887	0	0	0	0	0.00
Hawaii	44,502	13,963	2,607	3,623	20,193	45.37
Idaho	30,420	100	27	186	313	1.02
Illinois	1,227,842	5,587	313	239	6,139	.49
Indiana	--	NA	NA	NA	NA	NA
Iowa	127,911	20	26	18	64	.05
Kansas	102,738	87	30	28	145	.14
Kentucky	145,324	104	14	44	162	.11
Louisiana	174,403	123	9	10	142	.08
Maine	23,464	2	0	12	14	.05
Maryland	162,763	397	88	97	582	.35
Massachusetts	121,950	225	70	83	378	.30
Michigan	320,055	648	260	182	1,090	.34
Minnesota	--	NA	NA	NA	NA	NA
Mississippi	106,512	11	7	1	19	.01

[1] Total vocational education ernollment on this table will not match on other tables as: (1) students below grade nine are included; (2) five States could not provide ethnic enrollment data; and (3) Section III of U.S. Office of Education Form 3138 is estimated.

TABLE 57 Cont'd

States	Total Vocational Education Enrollment	Oriental Vocational Education Enrollment				Oriental Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
Missouri	150,256	165	110	120	395	.26
Montana	27,328	2	0	0	2	0.00
Nebraska	65,318	21	0	0	21	.03
Nevada	18,655	36	0	43	79	.42
New Hampshire	23,082	0	NA	NA	0	0.00
New Jersey	329,787	724	46	215	985	.29
New Mexico	52,605	120	17	8	145	.27
New York	831,822	NA	NA	NA	NA	NA
N. Carolina	415,849	189	0	1	190	.04
N. Dakota	26,215	11	1	3	15	.05
Ohio	416,977	346	15	334	695	.16
Oklahoma	104,223	54	3	30	87	.08
Oregon	111,824	432	97	210	739	.66
Pennsylvania	337,835	0	0	0	0	0.00
Rhode Island	18,370	28	5	3	36	.19
S. Carolina	102,372	0	0	0	0	0.00
S. Dakota	25,373	9	0	0	9	.03
Tennessee	143,572	39	23	4	66	.04
Texas	613,355	652	84	468	1,204	.19
Utah	108,799	789	76	86	951	.87
Vermont	13,441	1	0	4	5	.03
Virginia	301,904	42	35	16	93	.03
Washington	230,985	1,536	927	1,131	3,594	1.55
W. Virginia	--	NA	NA	NA	NA	NA
Wisconsin	187,637	15	NA	NA	15	0.00
Wyoming	16,511	25	15	14	54	.32
Guam	3,033	0	0	0	0	0.00
Puerto Rico	--	NA	NA	NA	NA	NA
Virgin Isl.	2,661	0	0	0	0	0.00
Am. Samoa	1,702	0	0	0	0	0.00
Pac. Tr. Terr.	2,914	0	0	0	0	0.00

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.

TABLE 58A

Difference Between Percent of Orientals in Total Vocational Education and Percent of Orientals in Total Population, 1970-71

States	Total Population	Total Oriental Population	Oriental as a Percent of Total Population	Total Oriental Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Orientals in Vocational Education and the Percent of Orientals in Total Population
U.S. TOTAL	203,220,097	1,026,352	.51	.70	.19
Alabama	3,444,165	1,705	.04	.28	.24
Alaska	300,382	1,144	.38	5.01	4.63
Arizona	1,773,420	6,272	.35	.18	-.17
Arkansas	1,923,295	1,330	.06	.47	.41
California	19,953,134	383,411	1.92	2.19	.27
Colorado	2,207,259	9,320	.42	.57	.15
Connecticut	3,031,709	3,830	.12	NA	NA
Delaware	548,104	918	.16	.11	-.05
Dist. of C.	756,510	3,233	.42	.14	-.28
Florida	6,789,443	7,223	.10	.10	.00
Georgia	4,589,575	3,420	.07	.00	-.07
Hawaii	769,913	269,346	34.98	45.37	10.39
Idaho	712,567	2,753	.38	1.02	.64
Illinois	11,113,976	31,773	.28	.49	.21
Indiana	5,193,669	4,394	.08	NA	NA
Iowa	2,824,376	2,002	.07	.05	-.02
Kansas	2,246,578	2,817	.12	.14	-.02
Kentucky	3,218,706	1,653	.05	.11	.06
Louisiana	3,641,306	2,463	.06	.08	.02
Maine	992,048	554	.05	.05	.00
Maryland	3,922,399	10,253	.26	.35	.09
Massachusetts	5,689,170	18,405	.32	.30	-.02
Michigan	8,875,083	11,628	.13	.34	.21
Minnesota	3,804,971	5,025	.13	NA	NA
Mississippi	2,216,912	1,902	.08	.01	-.07

TABLE 58A Cont'd

States	Total Population	Total Oriental Population	Orientals as a Percent of Total Population	Total Oriental Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Orientals in Vocational Education and the Percent of Orientals in Total Population
Missouri	4,676,501	5,197	.11	.26	.15
Montana	694,409	863	.12	.00	-.12
Nebraska	1,483,493	1,865	.12	.03	-.09
Nevada	488,738	2,042	.41	.42	.01
New Hampshire	737,681	780	.10	.00	-.10
New Jersey	7,168,164	14,914	.20	.29	.09
New Mexico	-1,016,000	1,503	.14	.27	.13
New York	18,241,266	101,729	.55	NA	NA
N. Carolina	5,082,059	3,359	.06	.04	-.02
N. Dakota	617,761	404	.06	.05	-.01
Ohio	10,652,017	10,860	.10	.16	.06
Oklahoma	2,559,229	2,407	.09	.08	-.01
Oregon	2,091,385	11,657	.55	.66	.11
Pennsylvania	11,793,909	12,514	.10	.00	-.10
Rhode Isl.	946,725	1,722	.18	.19	.01
S. Carolina	2,590,516	1,347	.05	.00	-.05
S. Dakota	665,507	384	.05	.03	-.02
Tennessee	3,923,687	2,770	.07	.04	-.03
Texas	11,196,730	14,172	.12	.19	.07
Utah	1,059,273	5,994	.56	.87	.31
Vermont	444,330	307	.06	.03	-.03
Virginia	4,648,494	6,305	.13	.03	-.10
Washington	3,409,169	29,536	.86	1.55	.69
W. Virginia	1,744,237	741	.04	NA	NA
Wisconsin	4,417,731	5,348	.12	.00	-.12
Wyoming	332,416	858	.25	.32	.07

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 58B

Rank Order of States by Difference of Percent of Orientals in Vocational Education and Percent of Orientals in Total Population, 1970-71

U.S. MEAN = .19

State	Percent	State	Percent
Hawaii	10.39	Kansas	-.02
Alaska	4.63	Massachusetts	-.02
Washington	.69	North Carolina	-.02
Idaho	.64	South Dakota	-.02
Arkansas	.41	Tennessee	-.03
Utah	.31	Vermont	-.03
California	.27	Delaware	-.05
Alabama	.24	South Carolina	-.05
Illinois	.21	Georgia	-.07
Michigan	.21	Mississippi	-.07
Colorado	.15	Nebraska	-.09
Missouri	.15	New Hampshire	-.10
New Mexico	.13	Pennsylvania	-.10
Oregon	.11	Virginia	-.10
Maryland	.09	Montana	-.12
New Jersey	.09	Wisconsin	-.12
Texas	.07	Arizona	-.17
Wyoming	.07	Dist. of Columbia	-.28
Kentucky	.06	Connecticut	NA
Ohio	.06	Indiana	NA
Louisiana	.02	Minnesota	NA
Nevada	.01	New York	NA
Rhode Island	.01	W. Virginia	NA
Florida	0.00		
Maine	0.00		
North Dakota	-.01		
Oklahoma	-.01		
Iowa	-.02		

Spanish-surnamed Americans in vocational education. This minority group is identified in several ways, none of them entirely satisfactory. It includes in the broadest sense Mexican Americans and other descendents of Spanish ancestors whose surnames may not be Spanish. It includes several distinct and different groups in the United States identified to a considerable extent geographically, i.e. Mexican Americans in the Southwest, Puerto Ricans in the Northeast, Cubans in the Southeast, and Filipinos in the West. Both manpower and vocational education data include Spanish-surnamed American totals, but census data were not available. It is therefore impossible to analyse student and trainee participation in relation to percentages of the population.

Table 59 gives the number and percent of Spanish-surnamed American enrollees in vocational education. Nationally there are more than one-half million enrolled in vocational education programs at all levels -- 5.88 percent of the total vocational education enrollment, a minority second only to the Negro enrollment, which is approximately three times as large. Individual State percentages reflect the geographic concentration of Spanish-surnamed American population. New Mexico is highest with approximately half of all vocational education students in this group. Texas has twenty-one percent, California sixteen percent, Wyoming fourteen percent, Arizona and New York eight percent, Illinois and Utah seven percent, and all other States below that to zero percent in Alaska, Georgia, Maine, Pennsylvania, and South Carolina (one adult is reported in Maine). (Data were not available for Connecticut, Indiana, Minnesota, and West Virginia; only secondary data were available for New Hampshire and Wisconsin.)

Other students in vocational education. Tables 60A and 60B give the percent of the predominately white population in the Nation and in each State enrolled in vocational education. Since this is the overwhelming population majority in every State except Alaska and Hawaii, it serves as a norm with which to measure vocational education participation by the minority populations. It has already been noted that the percentages of Negro, American Indian and Oriental populations enrolled in vocational education nationally in 1970-71 were 8.4 percent, 7.0 percent, and 6.7 percent respectively. In analysing "Other" students in vocational education, Spanish-surnamed Americans are included with the rest of the population. Negro, American Indian and Oriental percentages of vocational education exceed their percentages of the total population by 7.83, 0.13, and 0.19 respectively. Assuming that the Spanish-surnamed Americans percent of vocational education would also exceed their percent of the total population, two conclusions may be drawn. On the one hand minority groups are receiving the benefits of vocational education to a greater extent than the predominately white population. On the other hand, the predominately white population is being correspondingly ignored or neglected. In any case, nationally at least, the schools do not seem to be attracting proportionately as many non-minority students in vocational education courses as minority students.

TABLE 59

Enrollment of Spanish-surnamed American Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Spanish-surnamed Americans in Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Spanish-surname American Vocational Education Enrollment				Spanish-surname American Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,700,471[1]	354,158[1]	80,786	135,952	570,896	5.88
Alabama	153,515	105	0	0	105	.06
Alaska	13,228	0	0	0	0	0.00
Arizona	88,471	4,581	2,232	641	7,454	8.40
Arkansas	103,907	478	5	6	489	.47
California	1,218,055	88,627	54,169	52,092	194,888	15.99
Colorado	95,309	2,355	637	1,907	4,899	5.10
Connecticut	--	NA	NA	NA	NA	NA
Delaware	31,211	110	3	1	114	.36
Dist. of C.	11,148	1	4	72	77	.69
Florida	457,454	4,703	1,430	4,346	10,479	2.29
Georgia	255,887	0	0	0	0	0.00
Hawaii	44,502	0	53	61	114	.25
Idaho	30,420	338	121	159	618	2.03
Illinois	1,227,842	78,213	4,383	3,352	85,948	6.99
Indiana	--	NA	NA	NA	NA	NA
Iowa	127,911	207	92	172	471	.36
Kansas	102,738	817	235	493	1,545	1.50
Kentucky	145,324	296	3	15	314	.21
Louisiana	174,403	516	41	63	620	.35
Maine	23,464	0	0	1	1	0.00
Maryland	162,763	419	31	73	523	.32
Massachusetts	121,950	758	547	372	1,677	1.37
Michigan	320,055	1,779	141	596	2,516	.78
Minnesota	--	NA	NA	NA	NA	NA
Mississippi	106,512	18	14	0	32	.03

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[1] Total vocational education enrollment on this table will not match on other tables as: (1) students below grade nine are included; (2) four States could not provide ethnic enrollment data; (3) Section III of U.S. Office of Education Form 3138 is estimated.

TABLE 59 Cont'd

States	Total Vocational Education Enrollment	Spanish Surnamed American Vocational Education Enrollment				Spanish-surnamed American Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
Missouri	150,256	263	152	287	702	.46
Montana	27,328	23	2	0	25	.09
Nebraska	65,318	460	0	0	460	.70
Nevada	18,655	421	25	82	528	2.83
New Hampshire	23,082	6	NA	NA	6	.02
New Jersey	329,787	8,648	754	3,362	12,764	3.87
New Mexico	52,605	19,850	2,514	3,933	26,297	49.98
New York	831,822	56,924	2,218	6,963	66,105	7.95
N. Carolina	415,849	72	0	3	75	.01
N. Dakota	26,215	40	2	17	59	.22
Ohio	416,977	2,250	150	4,192	6,592	1.58
Oklahoma	104,223	353	25	215	593	.56
Oregon	111,824	454	97	230	781	.69
Pennsylvania	337,835	0	0	0	0	0.00
Rhode Island	18,370	175	14	9	198	1.07
S. Carolina	102,372	0	0	0	0	0.00
S. Dakota	25,373	17	3	0	20	.07
Tennessee	143,572	52	26	13	91	.06
Texas	613,355	69,795	8,925	50,657	129,377	21.09
Utah	108,799	5,840	544	910	7,294	6.70
Vermont	13,441	6	0	0	6	.04
Virginia	301,904	99	18	5	122	.04
Washington	230,985	2,134	949	516	3,599	1.55
W. Virginia		NA	NA	NA	NA	NA
Wisconsin	187,637	15	NA	NA	15	0.00
Wyoming	16,511	1,940	227	136	2,303	13.94
Guam	3,033	0	0	0	0	0.00
Puerto Rico	---	NA	NA	NA	NA	NA
Virgin Isl.	2,661	0	0	0	0	0.00
Am. Samoa	1,702	0	0	0	0	0.00
Pac. Tr. Terr.	2,914	0	0	0	0	0.00

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 60A

Enrollment of Other Vocational Education Students as a Percent of Total Other Population, 1970-71

States	Total Other Population	Total Other Enrolled in Vocational Education	Percent of Total Other Population Enrolled in Vocational Education
U.S. TOTAL	178,514,368	7,147,714[1,2]	4.0
Alabama	2,536,550	93,545	3.7
Alaska	274,051	5,379	2.0
Arizona	1,615,472	77,297	4.8
Arkansas	1,567,506	79.696	5.1
California	18,078,562	878,221	4.9
Colorado	2,122,692	88,287	4.2
Connecticut	2,844,480	NA	NA
Delaware	468,257	21,831	4.7
Dist. of C.	214,609	245	.1
Florida	5,733,892	340,792	5.9
Georgia	3,396,659	195,056	5.7
Hawaii	192,356	23,754	12.3
Idaho	700,997	29,024	4.1
Illinois	9,645,116	629,271	6.5
Indiana	4,827,924	NA	NA
Iowa	2,786,786	123,624	4.4
Kansas	2,128,112	93,689	4.4
Kentucky	2,984,729	119,699	4.0
Louisiana	2,546,717	111,969	4.4
Maine	986,499	23,400	2.4
Maryland	3,208,428	129,875	4.0
Massachusetts	5,490,473	114,418	2.1
Michigan	7,855,535	268,710	3.4
Minnesota	3,741,950	NA	NA
Mississippi	1,395,127	66,025	4.7

[1] Ethnic enrollments as shown on U.S. Office of Education Form 3138, Section III are estimated and therefore totals of ethnic enrollments will not equal total vocational education enrollments.

[2] Total does not include the U.S. Territories, therefore will not match total vocational education enrollments shown on other tables.

TABLE 60A Cont'd

States	Total Other Population	Total Other Enrolled in Vocational Education	Percent of Total Other Population Enrolled in Vocational Education
Missouri	4,185,727	124,105	3.0
Montana	664,421	25,046	3.8
Nebraska	1,435,093	58,841	4.1
Nevada	451,001	16,433	3.6
New Hampshire	734,035	23,063	3.1
New Jersey	6,378,252	260,657	4.1
New Mexico	922,154	20,769	2.3
New York	15,937,934	641,000	4.0
N. Carolina	3,907,816	282,687	7.2
N. Dakota	600,494	25,681	4.3
Ohio	9,664,026	300,963	3.1
Oklahoma	2,286,462	91,662	4.0
Oregon	2,039,880	107,312	5.3
Pennsylvania	10,759,348	300,634	2.8
Rhode Island	918,275	17,575	1.9
S. Carolina	1,797,887	51,715	2.9
S. Dakota	631,131	24,892	3.9
Tennessee	3,297,380	108,503	3.3
Texas	9,765,596	383,844	3.9
Utah	1,035,389	95,478	9.2
Vermont	443,033	13,411	3.0
Virginia	3,775,968	239,182	6.3
Washington	3,274,939	219,880	6.7
W. Virginia	1,675,403	NA	NA
Wisconsin	4,265,235	187,047	4.4
Wyoming	324,010	13,527	4.2

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

TABLE 60B

Rank Order of States by Percent of Other Population Enrolled in Vocational Education, 1970-71

U.S. MEAN = 4.0

State	Percent	State	Percent
Hawaii	12.3	Texas	3.9
Utah	9.2	South Dakota	3.9
North Carolina	7.2	Montana	3.8
Washington	6.7	Alabama	3.7
Illinois	6.5	Nevada	3.6
Virginia	6.3	Michigan	3.4
Florida	5.9	Tennessee	3.3
Georgia	5.7	Ohio	3.1
Oregon	5.3	New Hampshire	3.1
Arkansas	5.1	Vermont	3.0
California	4.9	Missouri	3.0
Arizona	4.8	South Carolina	2.9
Mississippi	4.7	Pennsylvania	2.8
Delaware	4.7	Maine	2.4
Wisconsin	4.4	New Mexico	2.3
Louisiana	4.4	Massachuetts	2.1
Kansas	4.4	Alaska	2.0
Iowa	4.4	Rhode Island	1.9
North Dakota	4.3	Dist. of Columbia	.1
Wyoming	4.2	West Virginia	NA
Colorado	4.2	Minnesota	NA
Nebraska	4.1	Indiana	NA
New Jersey	4.1	Connecticut	NA
Idaho	4.1		
Oklahoma	4.0		
New York	4.0		
Maryland	4.0		
Kentucky	4.0		

TABLE 61

Enrollment of Other Vocational Education Students at Secondary, Post-Secondary, and Adult Levels Showing Percent of Others in Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Other Vocational Education Enrollment				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
U.S. TOTAL	9,700,474[1]	4,172,722[1]	849,799	2,132,695	7,155,216	73.76
Alabama	153,515	52,553	12,850	28,142	93,545	60.93
Alaska	13,228	3,286	352	1,741	5,379	40.66
Arizona	88,471	43,413	19,051	14,833	77,297	87.36
Arkansas	103,907	36,675	5,310	37,711	79,696	76.69
California	1,218,055	399,375	244,108	234,738	878,221	72.10
Colorado	95,309	42,182	13,210	32,895	88,287	92.63
Connecticut	---	NA	NA	NA	NA	NA
Delaware	31,211	18,420	647	2,764	21,831	69.94
Dist. of C.	11,148	52	34	159	245	2.19
Florida	457,454	139,822	59,627	141,343	340,792	74.49
Georgia	255,887	111,333	6,680	77,043	195,056	76.22
Hawaii	44,502	14,558	4,359	4,837	23,754	53.37
Idaho	30,420	21,089	2,620	5,315	29,024	95.41
Illinois	1 227,842	574,181	31,659	23,431	629,271	51.25
Indiana	---	NA	NA	NA	NA	NA
Iowa	127,911	48,227	12,630	62,767	123,624	96.64
Kansas	102,738	41,808	6,384	45,497	93,689	91.19
Kentucky	145,324	71,997	8,200	39,502	119,699	82.36
Louisiana	174,403	75,093	13,547	23,329	111,969	64.20
Maine	23,464	16,458	1,626	5,316	23,400	99.72
Maryland	162,763	93,532	10,662	25,681	129,875	79.79
Massachusetts	121,950	91,197	6,685	16,536	114,418	93.82
Michigan	320,055	128,395	36,585	103,730	268,710	83.95
Minnesota	---	NA	NA	NA	NA	NA
Mississippi	106,512	30,066	6,159	29,800	66,025	61.98

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[1] Total vocational education enrollment on this table will not match on other tables as: (1) students below grade nine are included; (2) four States could not provide ethnic enrollment data; and (3) Section III of U.S. Office of Education Form 3138 is estimated.

TABLE 61 Cont'd

States	Total Vocational Education Enrollment	Other Vocational Education Enrollment				Percent of Total Vocational Education Enrollment
		Secondary	Post-Secondary	Adult	Total	
Missouri	150,256	88,045	8,334	27,726	124,105	82.59
Montana	27,328	14,630	3,038	7,378	25,046	91.64
Nebraska	65,318	36,433	4,788	17,620	58,841	90.08
Nevada	18,655	11,354	1,805	3,274	16,433	88.08
New Hampshire	23,082	18,363	1,816	2,884	23,063	99.91
New Jersey	329,787	171,799	16,480	72,378	260,657	79.03
New Mexico	52,605	3,629	3,109	14,031	20,769	39.48
New York	831,822	454,100	50,998	135,902	641,000	77.05
N. Carolina	415,849	116,641	30,915	135,131	282,687	67.97
N. Dakota	26,215	16,067	4,053	5,561	25,681	97.96
Ohio	416,977	163,587	11,487	125,889	300,963	72.17
Oklahoma	104,223	53,689	4,652	33,321	91,662	87.94
Oregon	111,824	63,157	14,661	29,494	107,312	95.96
Pennsylvania	337,835	161,568	23,768	115,298	300,634	88.98
Rhode Island	18,370	11,424	1,037	5,114	17,575	95.67
S. Carolina	102,372	40,577	1,586	9,552	51,715	50.51
S. Dakota	25,373	17,891	1,761	5,240	24,892	98.10
Tennessee	143,572	70,925	12,835	24,743	108,503	75.57
Texas	613,355	207,073	26,489	150,282	383,844	62.58
Utah	108,799	69,734	10,505	15,239	95,478	87.75
Vermont	13,441	10,428	173	2,810	13,411	99.77
Virginia	301,904	137,055	13,530	88,597	239,182	79.22
Washington	230,985	108,193	58,977	52,710	219,880	95.19
W. Virginia	----	NA	NA	NA	NA	NA
Wisconsin	187,637	56,427	38,136	92,484	187,047	99.68
Wyoming	16,511	11,568	1,156	803	13,527	81.92
Guam	3,033	869	114	2,025	3,008	99.17
Puerto Rico	----	NA	NA	NA	NA	NA
Virgin Isl.	2,661	0	0	0	0	0.00
Am. Samoa	1,702	1,101	479	0	1,580	92.83
Pac. Tr. Terr.	2,914	2,683	132	99	2,914	100.00

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 62A

Difference Between Percent of Other Students in Total Vocational Education and Percent of Others in Total Population, 1970-71

States	Total Population	Total Other Population	Others as a Percent of Total Population	Total Other Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Others in Vocational Education and the Percent of Others in Total Population
U.S. TOTAL	203,220,097	178,514,368	87.92	73.76	-14.16
Alabama	3,444,165	2,536,550	73.64	60.93	-12.71
Alaska	300,382	274,051	91.23	40.66	-50.57
Arizona	1,773,420	1,615,472	91.09	87.36	-3.73
Arkansas	1,923,295	1,567,506	96.56	76.69	-19.87
California	19,953,134	18,078,562	90.60	72.10	-18.50
Colorado	2,207,259	2,122,692	96.16	92.63	-3.53
Connecticut	3,031,709	2,844,480	93.82	NA	NA
Delaware	548,104	468,257	85.43	69.94	-15.49
Dist. of C.	756,510	214,609	28.36	2.19	-26.17
Florida	6,789,443	5,733,892	84.45	74.44	- 9.96
Georgia	4,589,575	3,396,659	74.00	76.22	2.22
Hawaii	769,913	192,356	24.98	53.37	28.39
Idaho	712,567	700,997	98.37	95.41	-2.96
Illinois	11,113,976	9,645,116	86.78	51.25	-35,53
Indiana	5,193,669	4,827,924	92.95	NA	NA
Iowa	2,824,376	2,786,786	98.66	96.64	-2.02
Kansas	2,246,578	2,128,112	94.72	91.19	-3.53
Kentucky	3,218,706	2,984,729	92.73	82.36	-10.37
Louisiana	3,641,306	2,546,717	69.93	64.20	-5.73
Maine	992,048	986,499	99.44	99.72	.28
Maryland	3,922,399	3,208,428	81.79	79.79	-2.00
Massachusetts	5,689,170	5,490,473	96.50	93.82	-2.68
Michigan	8,875,083	7,855,535	88.51	83.95	-4.56
Minnesota	3,804,971	3,741,950	98.34	NA	NA
Mississippi	2,216,912	1,395,127	62.93	61.98	-.95

TABLE 62A Cont'd

States	Total Population	Total Other Population	Others as a Percent of Total Population	Total Other Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Difference Between Percent of Others in Vocational Education and the Percent of Others in Total Population
Missouri	4,676,501	4,185,727	89.50	82.59	- 6.91
Montana	694,409	664,421	95.68	91.64	- 4.04
Nebraska	1,483,493	1,435,093	96.73	90.08	- 6.65
Nevada	488,738	451,001	92.27	88.08	- 4.19
New Hampshire	737,681	734,035	99.50	99.91	.41
New Jersey	7,168,164	6,378,252	88.98	79.03	- 9.95
New Mexico	1,016,000	922,154	90.76	39.48	-51.28
New York	18,241,266	15,937,934	87.37	77.05	-10.32
N. Carolina	5,082,059	3,907,816	76.89	67.97	- 8.92
N. Dakota	617,761	600,494	97.20	97.96	.76
Ohio	10,652,017	9,664,026	90.72	72.17	-18.55
Oklahoma	2,559,229	2,286,462	89.34	87.94	- 1.40
Oregon	2,091,385	2,039,880	97.53	95.96	- 1.57
Pennsylvania	11,793,909	10,759,348	91.22	88.98	- 2.24
Rhode Isl.	946,725	918,275	96.99	95.67	- 1.32
S. Carolina	2,590,516	1,797,887	69.40	50.51	-18.89
S. Dakota	665,507	631,131	94.83	98.10	3.27
Tennessee	3,923,687	3,297,380	84.03	75.57	- 8.46
Texas	11,196,730	9,765,596	87.21	62.58	-24.63
Utah	1,059,273	1,035,389	97.74	87.75	- 9.99
Vermont	444,330	443,033	99.70	99.77	.07
Virginia	4,648,494	3,775,968	81.22	79.22	- 2.00
Washington	3,409,169	3,274,939	96.06	95.19	- .87
W. Virginia	1,744,237	1,675,403	94.33	NA	NA
Wisconsin	4,417,731	4,265,235	96.54	99.68	3.14
Wyoming	332,416	324,010	97.47	81.92	-15.55

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.
1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary

TABLE 62B

Rank Order of States by Difference of Percent of Others in Vocational Education and Percent of Other Total Population, 1970-71

U.S. MEAN = -14.16

State	Percent	State	Percent
Hawaii	28.39	Tennessee	- 8.46
South Dakota	3.27	N. Carolina	- 8.92
Wisconsin	3.14	New Jersey	- 9.95
Georgia	2.22	Florida	- 9.96
North Dakota	.76	Utah	- 9.99
New Hampshire	.41	New York	-10.32
Maine	.28	Kentucky	-10.37
Vermont	.07	Alabama	-12.71
Washington	- .87	Delaware	-15.49
Mississippi	- .95	Wyoming	-15.55
Rhode Island	-1.32	California	-18.50
Oklahoma	-1.40	Ohio	-18.55
Oregon	-1.57	South Carolina	-18.89
Maryland	-2.00	Arkansas	-19.87
Virginia	-2.00	Texas	-24.63
Iowa	-2.02	District of Columbia	-26.17
Pennsylvania	-2.24	Illinois	-35.53
Massachusetts	-2.68	Alaska	-50.57
Idaho	-2.96	New Mexico	-51.28
Colorado	-3.53	Connecticut	NA
Kansas	-3.53	Indiana	NA
Arizona	-3.73	Minnesota	NA
Montana	-4.04	W. Virgina	NA
Nevada	-4.19		
Michigan	-4.56		
Louisiana	-5.73		
Nebraska	-6.65		
Missouri	-6.91		

Within the individual States the picture is substantially the same. Only in the District of Columbia does the national ethnic (predominately white) majority have less than one percent of its population enrolled in vocational education; in the District of Columbia, this group is the actual minority, not the majority. The highest percent of the national ethnic majority enrollment in vocational education in any State is in Hawaii, one of the States where Other is the actual minority, outnumbered three to one by so-called minorities.

The only other States having a higher percent of Other vocational education enrollments than percentage of the population (keeping in mind that this includes Spanish-surnamed Americans) were Georgia, Maine, New Hampshire, North Dakota, South Dakota, Vermont, and Wisconsin. Of these only Georgia, South Dakota and Wisconsin were significantly higher. (Data were not available from Connecticut, Indiana, Minnesota and West Virginia.)

Male and female enrollment. Nationally about four million of the nine million students in vocational education programs in 1970-71 were males and five million were females. The imbalance is probably due in most cases to the substantial enrollment in consumer and homemaking, still almost totally female.

Among the States the imbalance was much greater in some than in others, and not always in favor of females. Alabama, for example, had a 60:40 ratio with male students comprising sixty percent of the enrollment. Other States with predominately male enrollments in vocational education were Kansas (58.0 percent), Arkansas (52.0 percent), Illinois (52.0 percent), Nevada (51.0 percent), North Dakota (51.0 percent), Oklahoma (50.9 percent), Texas (50.4 percent), and Michigan (50.3 percent). A number of other States had almost even enrollments: North Carolina (50.0 percent), Alaska (49.0 percent), Ohio (49.0 percent), South Carolina (49.0 percent), Wisconsin (49.0 percent), Tennessee (48.6 percent), and Pennsylvania (48.0 percent).

Eighteen States had enrollments that were sixty percent or more female, four of them above sixty-five percent. Heading the list in this category was New Hampshire (71.2 percent), followed by Delaware (69.0 percent), Maryland (68.0 percent), and Wyoming (67.5 percent).

Disadvantaged students in vocational education. In 1961-62 the Panel of Consultants on Vocational Education became quite sensitive to the plight of "youth with special needs". This group was not specifically identified by the Panel but included all youth who for one reason or another could not succeed in the regular vocational education programs. Up to that time practically no attention had been given to this group in vocational education programs.

TABLE 63A

Male and Female Enrollment in Vocational Education as a Percent of Total Vocational Education Enrollment, 1970-71

States	Total Vocational Education Enrollment	Total Male Vocational Education Enrollment	Male Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Total Female Vocational Education Enrollment	Female Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	9,148,506	4,082,255	44.6	5,066,251	55.4
Alabama	147,220	88,332	60.0	58,888	40.0
Alaska	13,147	6,442	49.0	6,705	51.0
Arizona	88,471	36,892	41.7	51,579	58.3
Arkansas	103,907	54,031	52.0	49,876	48.0
California	1,204,611	552,885	45.9	651,726	54.1
Colorado	95,309	34,596	36.3	60,713	63.7
Connecticut	113,694	48,320	42.5	65,374	57.5
Delaware	31,211	9,676	31.0	21,535	69.0
Dist. of C.	11,008	4,084	37.1	6,924	62.9
Florida	438,087	179,616	41.0	258,471	59.0
Georgia	255,887	110,288	43.1	145,599	56.9
Hawaii	38,692	14,664	37.9	24,028	62.1
Idaho	30,370	12,042	39.7	18,328	60.3
Illinois	541,178	281,413	52.0	259,765	48.0
Indiana	131,338	56,475	43.0	74,863	57.0
Iowa	127,911	60,735	47.5	67,176	52.5
Kansas	93,151	54.027	58.0	39,124	42.0
Kentucky	145,324	66,893	46.0	78,431	54.0
Louisiana	174,373	66,261	38.0	108,112	62.0
Maine	23,424	10,541	45.0	12,883	55.0
Maryland	141,774	45,350	32.0	96,424	68.0
Massachusetts	121,950	56,727	46.5	65,223	53.5
Michigan	320,055	160,934	50.3	159,121	49.7
Minnesota	219,085	83,252	38.0	135,833	62.0
Mississippi	101,768	46,813	46.0	54,955	54.0

TABLE 63A Cont'd

States	Total Vocational Education Enrollment	Total Male Vocational Education Enrollment	Male Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment	Total Female Vocational Education Enrollment	Female Vocational Education Enrollment as a Percent of Total Vocational Education Enrollment
Missouri	143,632	54,580	38.0	89,052	62.0
Montana	27,328	11,751	43.0	15,577	57.0
Nebraska	65,318	28,544	43.7	36,774	56.3
Nevada	18,110	9,236	51.0	8,874	49.0
New Hampshire	23,082	6,646	28.8	16,436	71.2
New Jersey	292,516	105,306	36.0	187,210	64.0
New Mexico	49,178	19,426	39.5	29,752	60.5
New York	669,717	241,042	36.0	428,675	64.0
N. Carolina	376,817	188,329	50.0	188,488	50.0
N. Dakota	26,215	13,377	51.0	12,838	49.0
Ohio	389,044	190,631	49.0	198,413	51.0
Oklahoma	104,223	53,022	50.9	51,201	49.1
Oregon	101,090	36,482	36.1	64,608	63.9
Pennsylvania	337,835	162,161	48.0	175,674	52.0
Rhode Isl.	18,370	7,347	40.0	11,023	60.0
S. Carolina	93,616	45,872	49.0	47,744	51.0
S. Dakota	21,413	7,922	37.0	13,491	63.0
Tennessee	143,572	69,761	48.6	73,811	51.4
Texas	577,695	291,158	50.4	286,537	49.6
Utah	94,983	37,044	39.0	57,939	61.0
Vermont	12,593	5,793	46.0	6,800	54.0
Virginia	243,000	106,921	44.0	136,079	56.0
Washington	226,118	92,426	40.9	133,692	59.1
W. Virginia	59,199	27,231	46.0	31,968	54.0
Wisconsin	187,637	91,942	49.0	95,695	51.0
Wyoming	14,249	4,625	32.5	9,624	67.5
Guam	2,817	1,783	63.3	1,034	36.7
Puerto Rico	109,809	27,891	25.4	81,918	74.6
Virgin Isl.	1,769	402	22.7	1,367	77.3
Am. Samoa	1,702	763	44.8	939	55.2
Pac. Tr. Terr.	2,914	1,552	53.3	1,362	46.7

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 63B

Rank Order of States by Percent of Vocational Education Enrollment Represented by Males, 1970-71

U. S. MEAN = 44.6

State	Percent	State	Percent
Guam	63.3	Nebraska	43.7
Alabama	60.0	Georgia	43.1
Kansas	58.0	Indiana	43.0
Pac. Trust Terr.	53.3	Montana	43.0
Arkansas	52.0	Connecticut	42.5
Illinois	52.0	Arizona	41.7
Nevada	51.0	Florida	41.0
No. Dakota	51.0	Washington	40.9
Oklahoma	50.9	Rhode Island	40.0
Texas	50.4	Idaho	39.7
Michigan	50.3	New Mexico	39.5
No. Carolina	50.0	Utah	39.0
Alaska	49.0	Louisiana	38.0
Ohio	49.0	Minnesota	38.0
So. Carolina	49.0	Missouri	38.0
Wisconsin	49.0	Hawaii	37.9
Tennessee	48.6	Dist. of Columbia	37.1
Pennsylvania	48.0	South Dakota	37.0
Iowa	47.5	Colorado	36.3
Massachusetts	46.5	Oregon	36.1
Kentucky	46.0	New Jersey	36.0
Mississippi	46.0	New York	36.0
Vermont	46.0	Wyoming	32.5
West Virgina	46.0	Maryland	32.0
California	45.9	Delaware	31.0
Maine	45.0	New Hampshire	28.8
Am. Samoa	44.8	Puerto Rico	25.4
Virginia	44.0	Virgin Is.	22.7

TABLE 63C

Rank Order of States by Percent of Vocational Education Enrollment Represented by Females, 1970-71

U.S. MEAN = 55.4

State	Percent	State	Percent
Virgin Island	77.3	Virginia	56.0
Puerto Rico	74.6	Am. Samoa	55.2
New Hampshire	71.2	Maine	55.0
Delaware	69.0	California	54.1
Maryland	68.0	Kentucky	54.0
Wyoming	67.5	Mississippi	54.0
New Jersey	64.0	Vermont	54.0
New York	64.0	West Virginia	54.0
Oregon	63.9	Massachusetts	53.5
Colorado	63.7	Iowa	52.5
South Dakota	63.0	Pennsylvania	52.0
Dist. of Columbia	62.9	Tennessee	51.4
Hawaii	62.1	Alaska	51.0
Louisiana	62.0	Ohio	51.0
Minnesota	62.0	South Carolina	51.0
Missouri	62.0	Wisconsin	51.0
Utah	61.0	North Carolina	50.0
New Mexico	60.5	Michigan	49.7
Idaho	60.3	Texas	49.6
Rhode Island	60.0	Oklahoma	49.1
Washington	59.1	Nevada	49.0
Florida	59.0	North Dakota	49.0
Arizona	58.3	Arkansas	48.0
Connecticut	57.5	Illinois	48.0
Indiana	57.0	Pac. Tr. Terr.	46.7
Montana	57.0	Kansas	42.0
Georgia	56.9	Alabama	40.0
Nebraska	56.3	Guam	36.7

TABLE 64A

Enrollment of Disadvantaged Students in Vocational Education as a Percent of Total Enrollment in Vocational Education, 1970-71

States	Total Enrollment in Vocational Education	Total Disadvantaged Enrollment in Vocational Education	Percent of Total Vocational Education Enrollment
U.S. TOTAL	10,495,773 [1]	1,394,055[1]	13.3
Alabama	153,571	27,300	17.8
Alaska	13,228	8,187	61.9
Arizona	88,880	17,910	20.2
Arkansas	109,051	30,977	28.4
California	1,218,055	174,733	14.3
Colorado	108,391	4,162	3.8
Connecticut	133,548	39,206	29.4
Delaware	36,382	10,636	29.2
Dist. of C.	11,148	1,698	15.2
Florida	461,539	54,077	11.7
Georgia	272,202	68,997	25.3
Hawaii	44,502	1,837	4.1
Idaho	30,420	881	2.9
Illinois	1,227,842	110,471	9.0
Indiana	131,338	3,961	3.0
Iowa	127,911	11,645	9.1
Kansas	97,130	12,332	12.7
Kentucky	145,324	10,413	7.2
Louisiana	174,403	55,577	31.9
Maine	23,464	594	2.5
Maryland	162,761	30,982	19.0
Massachusetts	121,950	3,478	2.9
Michigan	320,055	19,349	6.0
Minnesota	286,202	10,888	3.8
Mississippi	106,512	7,357	6.9

[1] Figures in this column include some students below grade nine.

TABLE 64A Cont'd

States	Total Enrollment in Vocational Education	Total Disadvantaged Enrollment in Vocational Education	Percent of Total Vocational Education Enrollment
Missouri	150,256	11,247	7.5
Montana	27,328	2,988	10.9
Nebraska	65,318	2,834	4.3
Nevada	18,655	2,819	15.1
New Hampshire	44,174	547	1.2
New Jersey	329,787	16,484	5.0
New Mexico	52,605	22,817	43.4
New York	831,822	174,093	20.9
N. Carolina	415,849	47,240	11.4
N. Dakota	26,215	5,377	20.5
Ohio	416,977	80,818	19.4
Oklahoma	104,885	25,117	23.9
Oregon	111,824	19,610	17.5
Pennsylvania	337,835	25,984	7.7
Rhode Island	18,370	2,593	14.1
S. Carolina	102,372	19,314	18.9
S. Dakota	25,373	3,751	14.8
Tennessee	143,572	13,523	9.4
Texas	608,252	56,790	9.3
Utah	108,799	9,874	9.1
Vermont	13,441	2,800	20.8
Virginia	301,904	44,733	14.8
Washington	230,985	7,629	3.3
W. Virginia	59,214	4,042	6.8
Wisconsin	189,749	13,096	6.9
Wyoming	16,511	578	3.5
Guam	3,008	910	30.3
Puerto Rico	127,374	54,104	42.5
Virgin Islands	2,894	217	7.5
Am. Samoa	1,702	1,564	91.9
Pac. Tr. Terr.	2,914	2,914	100.0

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 64B

Rank Order of States by Percent of Vocational Education Enrollment Represented by Disadvantaged Students, 1970-71

U.S. MEAN = 13.3

State	Percent	State	Percent
Pac. Tr. Terr.	100.0	Florida	11.7
Am. Samoa	91.9	North Carolina	11.4
Alaska	61.9	Montana	10.9
New Mexico	43.4	Tennessee	9.4
Puerto Rico	42.5	Texas	9.3
Louisiana	31.9	Iowa	9.1
Guam	30.3	Utah	9.1
Connecticut	29.4	Illinois	9.0
Delaware	29.2	Pennsylvania	7.7
Arkansas	28.4	Missouri	7.5
Georgia	25.3	Virgin Is.	7.5
Oklahoma	23.9	Kentucky	7.2
New York	20.9	Mississippi	6.9
Vermont	20.8	Wisconsin	6.9
North Dakota	20.5	West Virginia	6.8
Arizona	20.2	Michigan	6.0
Ohio	19.4	New Jersey	5.0
Maryland	19.0	Nebraska	4.3
South Carolina	18.9	Hawaii	4.1
Alabama	17.8	Colorado	3.8
Oregon	17.5	Minnesota	3.8
Dist. of Columbia	15.2	Wyoming	3.5
Nevada	15.1	Washington	3.3
South Dakota	14.8	Indiana	3.0
Virginia	14.8	Idaho	2.9
California	14.3	Massachusetts	2.9
Rhode Island	14.1	Maine	2.5
Kansas	12.7	New Hampshire	1.2

In 1966-67, the Advisory Council on Vocational Education became extremely sensitive to the needs of a variety of persons who were disadvantaged. It must be reacalled that the interval between these two national studies of vocational education was the same period during which the Nation experienced the riots of Watts, Detroit, Cleveland, and Trenton. In addition, critical problems had developed in connection with the unemployed, underemployed, and the growing number of welfare cases -- and most of the people concerned did not possess employment skills.

The provisions of the Vocational Education Amendments of 1968 were explicit in connection with the vocational education needs of the disadvantaged person. Table 64A indicates the degree to which the various States reacted in providing vocational education programs for the disadvantaged. Complete analysis of the problem requires additional data concerning the total number of youth in school (and the persons in the population in general) who should be classified as disadvantaged. The data available for 1970-71 show that 1,394,055 disadvantaged persons were enrolled in vocational education nationally, 13.3 percent of the total enrolled.

Individual States vary widely in the percent of disadvantaged students reported in vocational education. Sixty-two percent of Alaska's entire vocational education enrollment was disadvantaged, while only one percent of New Hampshire's was.[1] In seven States one-fourth or more of the vocational education students were disadvantaged. Besides Alaska, they were New Mexico (43.4 percent), Louisiana (31.9 percent), Connecticut (29.4 percent), Delaware (29.2 percent), Arkansas (28.4 percent), and Georgia (25.3 percent). Eleven States had fewer than five percent. In addition to New Hampshire, they were Nebraska (4.3 percent), Hawaii (4.1 percent), Colorado (3.8 percent), Minnesota (3.8 percent), Wyoming (3.5 percent), Washington (3.3 percent), Indiana (3.0 percent), Idaho (2.9 percent), Massachusetts (2.9 percent), and Maine (2.5 percent). Additional information is needed to understand the great differences in the percent of disadvantaged students enrolled in vocational education among individual States and the extremely low percentages in so many of them. Why does Connecticut, for example, have nearly a third of its vocational education students among the disadvantaged, while the percentages in neighboring Massachusetts, Maine and New Hampshire are only one-tenth as high? The percent in Louisiana is more than four times as high as in contiguous Mississippi -- why? Attempts will be made to pursue these questions further in subsequent research. One observation which cannot be avoided in the meantime is that vocational education in most States is not reaching enough of the students who need it most, and in at least half of the States, the percent of these persons in vocational education programs is so low that a critical review of the situation may be advised.

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[1] This is not to be confused with the percent of Federal funds which must be used for disadvantaged students. Conceivably, fifteen percent of a State's Federal allotment could be used for special classes for disadvantaged at a cost per student so high that relatively few disadvantaged students could be served.

Handicapped students in vocational education. Analysis of the data concerning enrollment of the handicapped in vocational education indicates a rather wide variation among States. In part, the variation may be due to the confusion surrounding the definition of the handicapped, which consequently produces a variety of interpretations. Also, other agencies have concern for the plight of the handicapped, and it is not known to what extent this has been a factor in the varied enrollment of such persons in the public school programs.

In order to study this facet of vocational education, adequate data are urgently needed showing the distribution of youth in the public schools who belong in the classification of handicapped. Data also are needed concerning the total number of handicapped persons in each State. Until such data are available, it is not possible to develop an adequate analysis of the impact of vocational education upon the occupational preparation of handicapped youth in school, or the effect of vocational education upon the total handicapped population.

There can be little doubt about the fact that the vocational education programs of the Nation have attempted to fulfill the requirements of the Vocational Education Amendments of 1968 concerning the handicapped; in fact, such programs enrolled 202,035 persons.

Manpower Programs

MDTA Manpower Training. The following series of tables and analyses show the same relationships between ethnic groups and MDTA enrollments as were given on the preceding pages between ethnic groups and vocational education enrollments. Since the total enrollment in all manpower programs is less than one-tenth the enrollment in vocational education, percentages of each ethnic group receiving manpower training are correspondingly low. Their significance is also much less. They are presented, nevertheless, as a basis for comparison between States. More significant is the percent of manpower enrollment from each ethnic group compared with the percentages of these groups in the total population.

Negroes in MDTA programs. (Tables 66, 67, 68) Nationally thirty-two percent of all MDTA trainees in 1970-71 were Negroes, compared with eleven percent in the total population and nineteen percent in vocational education. States ranged from the high of sixty-seven percent in Delaware (the District of Columbia had seventy-five percent) to less than one percent in Alaska, Maine, Montana, New Hampshire, North Dakota, South Dakota, and Vermont.

TABLE 65A

Enrollment of Handicapped Students in Vocational Education as a Percent of Total Enrollment in Vocational Education, 1970-71

States	Total Enrollment in Vocational Education	Total Handicapped Enrollment in Vocational Education	Percent of Total Vocational Education Enrollment
U.S. TOTAL	10,495,773[1]	202,035[1]	1.9
Alabama	153,571	3,288	2.1
Alaska	13,228	634	4.8
Arizona	88,880	406	.5
Arkansas	109,051	3,204	2.9
California	1,218,055	51,447	4.2
Colorado	108,391	675	.6
Connecticut	133,548	889	.7
Delaware	36,382	504	1.4
Dist. of C.	11,148	225	2.0
Florida	461,539	5,819	1.3
Georgia	272,202	20,988	7.7
Hawaii	44,502	1,020	2.3
Idaho	30,420	205	.7
Illinois	1,227,842	11,623	.9
Indiana	131,338	1,203	.9
Iowa	127,911	2,439	1.9
Kansas	97,130	3,988	4.1
Kentucky	145,324	1,602	1.1
Louisiana	174,403	1,048	.6
Maine	23,464	177	.8
Maryland	162,761	7,658	4.7
Massachusetts	121,950	812	.7
Michigan	320,055	1,855	.6
Minnesota	286,202	5,856	2.0
Mississippi	106,512	2,490	2.3
Missouri	150,256	2,115	1.4
Montana	27,328	1,053	3.9
Nebraska	65,318	1,417	2.2
Nevada	18,655	114	.6
New Hampshire	44,174	213	.5

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[1] Figures in this column include some students below grade nine.

TABLE 65A Cont'd

States	Total Enrollment in Vocational Education	Total Handicapped Enrollment in Vocational Education	Percent of Total Vocational Education Enrollment
New Jersey	329,787	6,292	1.9
New Mexico	52,605	1,167	2.2
New York	831,822	5,807	.7
N. Carolina	415,849	8,635	2.1
N. Dakota	26,215	774	3.0
Ohio	416,977	11,706	2.8
Oklahoma	104,885	4,107	3.9
Oregon	111,824	1,265	1.1
Pennsylvania	337,835	4,597	1.4
Rhode Isl.	18,370	383	2.1
S. Carolina	102,372	3,456	3.4
S. Dakota	25,373	916	3.6
Tennessee	143,572	1,197	.3
Texas	608,252	3,543	.6
Utah	108,799	2,258	2.1
Vermont	13,441	167	1.2
Virginia	301,904	3,400	1.1
Washington	230,985	3,284	1.4
W. Virginia	59,214	812	1.4
Wisconsin	189,749	2,145	1.1
Wyoming	16,511	282	1.7
Guam	3,008	31	1.0
Puerto Rico	127,374	750	.6
Virgin Isl.	2,894	23	.8
Am. Samoa	1,702	0	0.0
Pac. Tr. Terr.	2,914	71	2.4

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 65B

Rank Order of States by Percent of Vocational Education Enrollment Represented by Handicapped Students, 1970-71

U.S. MEAN = 1.9

State	Percent	State	Percent
Georgia	7.7	Pennsylvania	1.4
Alaska	4.8	Washington	1.4
Maryland	4.7	West Virginia	1.4
California	4.2	Florida	1.3
Kansas	4.1	Vermont	1.2
Montana	3.9	Kentucky	1.1
Oklahoma	3.9	Oregon	1.1
South Dakota	3.6	Virginia	1.1
South Carolina	3.4	Wisconsin	1.1
North Dakota	3.0	Guam	1.0
Arkansas	2.9	Illinois	.9
Ohio	2.8	Indiana	.9
Pac. Tr. Terr.	2.4	Maine	.8
Hawaii	2.3	Tennessee	.8
Mississippi	2.3	Virgin Is.	.8
Nebraska	2.2	Connecticut	.7
New Mexico	2.2	Idaho	.7
Alabama	2.1	Massachusetts	.7
North Carolina	2.1	New York	.7
Rhode Island	2.1	Colorado	.6
Utah	2.1	Louisiana	.6
Dist. of Columbia	2.0	Michigan	.6
Minnesota	2.0	Nevada	.6
Iowa	1.9	Puerto Rico	.6
New Jersey	1.9	Texas	.6
Wyoming	1.7	Arizona	.5
Delaware	1.4	New Hampshire	.5
Missouri	1.4	Am. Samoa	0.0

TABLE 66

Enrollment of Negro MDTA Trainees as a Percent of Total Negro Population, 1970-71

States	Total Negro Population	Total Enrollment of Negro MDTA Trainees	Percent of Total Negro Population
U.S. TOTAL	22,580,289	57,289[1]	.25
Alabama	903,467	1,432	.15
Alaska	8,911	4	.04
Arizona	53,344	408	.76
Arkansas	352,445	389	.11
California	1,400,143	4,463	.31
Colorado	66,411	438	.65
Connecticut	181,177	1,005	.55
Delaware	78,276	369	.47
Dist. of C.	537,712	539	.10
Florida	1,041,651	1,350	.12
Georgia	1,187,149	2,169	.18
Hawaii	7,573	13	.17
Idaho	2,130	30	1.40
Illinois	1,425,674	4,345	.30
Indiana	357,464	1,862	.52
Iowa	32,596	248	.76
Kansas	106,977	903	.84
Kentucky	230,793	644	.27
Louisiana	1,086,832	1,002	.09
Maine	2,800	3	.10
Maryland	699,479	1,421	.20
Massachusetts	175,817	1,098	.62
Michigan	991,066	2,798	.28
Minnesota	34,868	231	.66
Mississippi	815,770	1,284	.15

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[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 66 Cont'd

States	Total Negro Population	Total Enrollment of Negro MDTA Trainees	Percent of Total Negro Population
Missouri	480,172	1,316	.27
Montana	1,995	3	.15
Nebraska	39,911	210	.52
Nevada	27.762	124	.44
New Hampshire	2,505	1	.03
New Jersey	770,292	3,758	.48
New Mexico	19,555	43	.21
New York	2,168,949	5,922	.27
N. Carolina	1,126,478	1,724	.15
N. Dakota	2,494	1	.04
Ohio	970,477	3,066	.31
Oklahoma	171,892	700	.40
Oregon	26,308	269	1.02
Pennsylvania	1,016,514	3,100	.30
Rhode Island	25,338	159	.62
S. Carolina	789,041	1,197	.15
S. Dakota	1,627	1	.05
Tennessee	621,261	1,648	.26
Texas	1,399,005	2,914	.20
Utah	6,617	41	.61
Vermont	761	2	.26
Virginia	861,368	1,159	.13
Washington	71,308	427	.59
W. Virginia	67,342	123	.18
Wisconsin	128,224	866	.67
Wyoming	2,568	6	.23
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pacific Tr. Terr.	NA	NA	NA
Unidentified States	NA	NA	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 67

Enrollment of Negro MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71

States	Total MDTA Trainees Enrollment	Total Negro MDTA Trainees Enrollment	Total Negro MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	178,978[1]	57,289[1]	32.00
Alabama	2,975	1,432	48.13
Alaska	607	4	.65
Arizona	3,402	408	11.99
Arkansas	1,209	389	32.17
California	14,980	4,463	29.79
Colorado	3,089	438	14.17
Connecticut	2,792	1,005	35.99
Delaware	552	369	66.84
Dist. of C.	720	539	74.86
Florida	2,846	1,350	47.43
Georgia	5,514	2,169	39.33
Hawaii	904	13	1.43
Idaho	915	30	3.27
Illinois	8,483	4,345	51.22
Indiana	4,135	1,812	45.03
Iowa	2,872	248	8.63
Kansas	2,920	903	30.92
Kentucky	3,170	644	20.31
Louisiana	2,615	1,002	38.31
Maine	1,012	3	.29
Maryland	2,658	1,421	53.46
Massachusetts	5,989	1,098	18.33
Michigan	6,665	2,798	41.98
Minnesota	3,106	231	7.43
Mississippi	2,816	1,284	45.59

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[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 67 Cont'd

States	Total MDTA Trainees Enrollment	Total Negro MDTA Trainees Enrollment	Total Negro MDTA Enrollment as a Percent of Total MDTA Enrollment
Missouri	4,008	1,316	32.83
Montana	999	3	.30
Nebraska	1,422	210	14.76
Nevada	822	124	15.08
New Hampshire	742	1	.13
New Jersey	7,625	3,758	49.28
New Mexico	1,055	43	4.07
New York	12,874	5,922	45.99
N. Carolina	4,345	1,724	39.67
N. Dakota	590	1	.16
Ohio	7,204	3,066	42.55
Oklahoma	3,432	700	20.39
Oregon	1,682	269	15.99
Pennsylvania	8,940	3,100	34.67
Rhode Island	1,065	159	14.92
S. Carolina	2,572	1,197	46.53
S. Dakota	505	1	.19
Tennessee	3,611	1,648	45.63
Texas	11,101	2,914	26.24
Utah	1,469	41	2.79
Vermont	637	2	.31
Virginia	3,450	1,159	33.59
Washington	3,650	427	11.69
W. Virginia	1,849	123	6.65
Wisconsin	3,580	866	24.18
Wyoming	491	6	1.22
Unidentified States	2,312	61	2.63

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

TABLE 68

Difference Between Percent of Negroes in MDTA and Percent of Negroes in Total Population, 1970-71

States	Total Negro Population as a Percent of Total Population	Negro MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Negroes in MDTA and Percent of Negroes in Total Population
U.S. TOTAL	11.12	32.00	20.88
Alabama	26.23	48.13	21.90
Alaska	2.96	.65	- 2.31
Arizona	3.00	11.99	8.99
Arkansas	18.32	32.17	13.85
California	7.01	29.79	22.78
Colorado	3.00	14.17	11.17
Connecticut	5.97	35.99	30.02
Delaware	14.28	66.84	52.56
Dist. of C.	71.07	74.86	3.79
Florida	15.34	47.43	32.09
Georgia	25.86	39.33	13.47
Hawaii	.98	1.43	.45
Idaho	.29	3.27	2.98
Illinois	12.82	51.22	38.40
Indiana	6.88	45.03	38.15
Iowa	1.15	8.63	7.48
Kansas	4.76	30.92	26.16
Kentucky	7.17	20.31	13.14
Louisiana	29.84	38.31	8.47
Maine	.28	.29	.01
Maryland	17.83	53.46	35.63
Massachusetts	3.09	18.33	15.24
Michigan	11.16	41.98	30.82
Minnesota	.91	7.43	6.52
Mississippi	36.79	45.59	8.80

TABLE 68 Cont'd

States	Total Negro Population as a Percent of Total Population	Negro MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Negroes in MDTA and Percent of Negroes in Total Population
Missouri	10.26	32.83	22.57
Montana	.28	.30	.02
Nebraska	2.69	14.76	12.07
Nevada	5.68	15.08	9.40
New Hampshire	.33	.13	- .20
New Jersey	10.74	49.28	38.54
New Mexico	1.92	4.07	2.15
New York	11.89	45.99	34.10
N. Carolina	22.16	39.67	17.51
N. Dakota	.40	.16	- .24
Ohio	9.11	42.55	33.44
Oklahoma	6.11	20.39	13.68
Oregon	1.25	15.99	14.74
Pennsylvania	8.61	34.67	26.06
Rhode Island	2.67	14.92	12.25
S. Carolina	30.45	46.53	16.08
S. Dakota	.24	.19	- .05
Tennessee	15.83	45.63	29.80
Texas	12.49	26.24	13.75
Utah	.62	2.79	2.17
Vermont	.17	.31	.14
Virginia	18.53	33.59	15.06
Washington	2.09	11.69	9.60
W. Virginia	3.86	6.65	2.79
Wisconsin	2.90	24.18	21.28
Wyoming	.77	1.22	.45
Unidentified States	--	2.63	--

Source: Tables 52A and 67.

American Indians in MDTA programs. (Tables 69, 70, 71) The national percent of MDTA trainees who were American Indians was 2.5 percent, compared with only 0.36 percent in the total population and 0.49 percent in vocational education. South Dakota led in the percent of MDTA trainees who were American Indians (53.1 percent), followed by Arizona (28.0 percent), and Montana (22.3 percent). Five States reported no American Indians at all in their MDTA programs: Hawaii, New Hampshire, Vermont, Virginia, and West Virginia.

Orientals in MDTA programs. (Tables 72, 73, 74) The percent of MDTA trainees reported as Orientals is exactly the same as in the population for the entire Nation, 0.5 percent. Vocational education has only a slightly higher percentage, 0.7 percent. Variations between States are somewhat similar but in several cases quite different. For example, Hawaii, where 45.37 percent of the vocational students are Orientals, has only 30.9 percent of its MDTA enrollment from this ethnic group.

Other trainees in MDTA programs. (Tables 75, 76, 77) The national predominately white ethnic majority makes up sixty-three percent of all MDTA enrollments in the Nation, compared with nearly eighty-eight percent in the total population and seventy-four percent in vocational education. It is evident from these data that MDTA programs enroll substantially higher percentages of most ethnic groups than are found either in the total population or in vocational education. Conversely, substantially smaller percentages of the national predominately white ethnic majority are found in MDTA programs.

EOA Manpower Training. Tables 78 through 89 provide the same ethnic data on EOA manpower programs as the previous tables have done in vocational education and MDTA programs. Minority group trainees as percentages of total minority populations are quite small because of the relatively few enrollees in EOA programs. As percentages of enrollments, however, they are not only very substantial but much more significant. For comparison with vocational education, they should be related to those tables. They are treated here solely as measurements of the participation in all EOA programs nationally and in each State by each of the major ethnic minorities and the national ethnic majority.

In 1970-71, Negroes made up nearly half of the enrollment in all EOA programs nationally; in individual States the figures ranged from none in New Hampshire to eighty-five percent in Mississippi; it was ninety-three percent in the District of Columbia. The difference between the percent of Negroes in EOA programs and that in the total population was as high as sixty-six percentage points (Maryland) and as low as less than one percentage point (Alaska and New Hampshire). The average national difference was 33.66 percentage points (percent enrolled higher than percent in the population), with twenty-one States having a difference of forty percentage points or more.

TABLE 69

Enrollment of American Indian MDTA Trainees as a Percent of Total American Indian Population, 1970-71

States	Total American Indian Population	Total Enrollment of American Indian MDTA Trainees	Percent of Total American Indian Population
U.S. TOTAL	734,940	4,433[1]	.60
Alabama	2,443	3	.12
Alaska	16,276	10	.06
Arizona	95,812	953	.99
Arkansas	2,014	2	.09
California	91,018	250	.27
Colorado	8,836	76	.86
Connecticut	2,222	1	.04
Delaware	656	2	.30
Dist. of C.	956	1	.10
Florida	6,677	2	.02
Georgia	2,347	7	.29
Hawaii	1,126	0	.00
Idaho	2,130	81	3.80
Illinois	11,413	48	.42
Indiana	3,887	3	.07
Iowa	2,992	38	1.27
Kansas	8,672	27	.31
Kentucky	1,531	2	.13
Louisiana	5,294	6	.11
Maine	2,195	116	5.28
Maryland	4,239	7	.16
Massachusetts	4,475	14	.31
Michigan	16,854	49	.29
Minnesota	23,128	205	.88
Mississippi	4,113	29	.70

[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 69 Cont'd

States	Total American Indian Population	Total Enrollment of American Indian MDTA Trainees	Percent of Total American Indian Population
Missouri	5,405	7	.12
Montana	27,130	223	.82
Nebraska	6,624	63	.95
Nevada	7,933	126	1.58
New Hampshire	361	0	.00
New Jersey	4,706	4	.08
New Mexico	19,555	78	.39
New York	28,355	112	.39
N. Carolina	44,406	111	.24
N. Dakota	14,369	86	.59
Ohio	6,654	7	.10
Oklahoma	98,468	340	.34
Oregon	13,510	46	.34
Pennsylvania	5,533	17	.30
Rhode Island	1,390	2	.14
S. Carolina	2,241	6	.26
S. Dakota	32,365	268	.82
Tennessee	2,276	3	.13
Texas	17,957	25	.13
Utah	11,273	224	1.98
Vermont	229	0	.00
Virginia	4,853	0	.00
Washington	33,386	422	1.26
W. Virginia	751	0	.00
Wisconsin	18,924	292	1.01
Wyoming	4,980	33	.66
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pacific Tr. Terr.	NA	NA	NA
Unidentified States	NA	6	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 70

Enrollment of American Indian MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71

States	Total MDTA Trainees Enrollment	Total American Indian MDTA Trainees	Total American Indian MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	178,978[1]	4,433[1]	2.47
Alabama	2,975	3	.10
Alaska	607	10	1.64
Arizona	3,402	953	28.01
Arkansas	1,209	2	.16
California	14,980	250	1.66
Colorado	3,089	76	2.46
Connecticut	2,792	1	.03
Delaware	552	2	.36
Dist. of C.	720	1	.13
Florida	2,846	2	.07
Georgia	5,514	7	.12
Hawaii	904	0	0.00
Idaho	915	81	8.85
Illinois	8,483	48	.56
Indiana	4,135	3	.07
Iowa	2,872	38	1.32
Kansas	2,920	27	.92
Kentucky	3,170	2	.06
Louisiana	2,615	6	.22
Maine	1,012	116	11.46
Maryland	2,658	7	.26
Massachusetts	5,989	14	.23
Michigan	6,665	49	.73
Minnesota	3,106	205	6.60
Mississippi	2,816	29	1.02

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[1] Figures in this table reflect only occupationally related MDTA enrollment and are less than total MDTA enrollments.

TABLE 70 Cont'd

States	Total MDTA Trainees Enrollment	Total American Indian MDTA Trainees	Total American Indian MDTA Enrollment as a Percent of Total MDTA Enrollment
Missouri	4,008	7	.17
Montana	999	223	22.32
Nebraska	1,422	63	4.43
Nevada	822	126	15.32
New Hampshire	742	0	0.00
New Jersey	7,625	4	.05
New Mexico	1,055	78	7.39
New York	12,874	112	.86
N. Carolina	4,345	111	2.55
N. Dakota	590	86	14.57
Ohio	7,204	7	.09
Oklahoma	3,432	340	9.90
Oregon	1,682	46	2.73
Pennsylvania	8,940	17	.19
Rhode Island	1,065	2	.18
S. Carolina	2,572	6	.23
S. Dakota	505	268	53.06
Tennessee	3,611	3	.08
Texas	11,101	25	.22
Utah	1,469	224	15.24
Vermont	637	0	0.00
Virginia	3,450	0	0.00
Washington	3,650	422	11.56
W. Virginia	1,849	0	0.00
Wisconsin	3,580	292	8.15
Wyoming	491	33	6.72
Unidentified States	2,312	6	.25

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

TABLE 71

Difference Between Percent of American Indians in MDTA and Percent of American Indians in Total Population, 1970-71

States	American Indian Population as a Percent of Total Population	American Indian MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of American Indians in MDTA and Percent of American Indians in Total Population
U.S. TOTAL	.36	2.47	2.11
Alabama	.07	.10	.03
Alaska	5.41	1.64	- 3.77
Arizona	5.40	28.01	22.61
Arkansas	.10	.16	.06
California	.45	1.66	1.21
Colorado	.40	2.46	2.06
Connecticut	.07	.03	- .04
Delaware	.11	.36	.25
Dist. of C.	.12	.13	.01
Florida	.09	.07	- .02
Georgia	.05	.12	.07
Hawaii	.15	0.00	- .15
Idaho	.29	8.85	8.56
Illinois	.10	.56	.46
Indiana	.07	.07	0.00
Iowa	.10	1.32	1.22
Kansas	.38	.92	.54
Kentucky	.04	.06	.02
Louisiana	.14	.22	.08
Maine	.22	11.46	11.24
Maryland	.10	.26	.16
Massachusetts	.07	.23	.16
Michigan	.18	.73	.55
Minnesota	.60	6.60	6.00
Mississippi	.18	1.02	.84

TABLE 71 Cont'd

States	American Indian Population as a Percent of Total Population	American Indian MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of American Indians in MDTA and Percent of American Indians in Total Population
Missouri	.11	.17	.06
Montana	3.90	22.32	18.42
Nebraska	.44	4.43	3.99
Nevada	1.62	15.32	13.70
New Hampshire	.04	0.00	- .04
New Jersey	.06	.05	- .01
New Mexico	1.92	7.39	5.47
New York	.15	.86	.71
N. Carolina	.87	2.55	1.68
N. Dakota	2.32	14.57	12.25
Ohio	.06	.09	.03
Oklahoma	3.84	9.90	6.06
Oregon	.64	2.79	2.15
Pennsylvania	.04	.19	.15
Rhode Island	.14	.18	.04
S. Carolina	.08	.23	.15
S. Dakota	4.86	53.06	48.20
Tennessee	.05	.08	.03
Texas	.16	.22	.06
Utah	1.05	15.24	14.18
Vermont	.05	0.00	- .05
Virginia	.10	0.00	- .10
Washington	.97	11.56	10.59
W. Virginia	.04	0.00	- .04
Wisconsin	.42	8.15	7.73
Wyoming	1.49	6.72	5.23
Unidentified States	--	.25	--

Source: Tables 55A and 70.

TABLE 72

Enrollment of Oriental MDTA Trainees as a Percent of Total Oriental Population, 1970-71

States	Total Oriental Population	Total Enrollment of Oriental MDTA Trainees	Percent of Total Oriental Population
U.S. TOTAL	1,026,352	832[1]	.08
Alabama	1,705	1	.05
Alaska	1,144	0	0.00
Arizona	6,272	10	.15
Arkansas	1,330	0	0.00
California	383,411	244	.06
Colorado	9,320	11	.11
Connecticut	3,830	5	.13
Delaware	918	0	0.00
Dist. of C.	3,233	1	.03
Florida	7,223	1	.01
Georgia	3,420	6	.17
Hawaii	269,346	279	.10
Idaho	2,753	2	.07
Illinois	31,773	11	.03
Indiana	4,394	1	.02
Iowa	2,002	2	.09
Kansas	2,817	3	.10
Kentucky	1,653	0	0.00
Louisiana	2,463	1	.04
Maine	554	1	.18
Maryland	10,253	2	.01
Massachusetts	18,405	13	.07
Michigan	11,628	5	.04
Minnesota	5,025	5	.09
Mississippi	1,902	0	0.00

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[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 72 Cont'd

States	Total Oriental Population	Total Enrollment of Oriental MDTA Trainees	Percent of Total Oriental Population
Missouri	5,197	2	.03
Montana	863	1	.11
Nebraska	1,865	0	0.00
Nevada	2,042	1	.04
New Hampshire	780	2	.25
New Jersey	14,914	16	.10
New Mexico	1,503	0	0.00
New York	101,729	112	.11
N. Carolina	3,359	5	.14
N. Dakota	404	0	0.00
Ohio	10,860	4	.03
Oklahoma	2,407	2	.08
Oregon	11,657	6	.05
Pennsylvania	12,514	9	.07
Rhode Island	1,722	1	.05
S. Carolina	1,347	3	.22
S. Dakota	384	0	0.00
Tennessee	2,770	2	.07
Texas	14,172	14	.09
Utah	5,994	6	.10
Vermont	307	1	.32
Virginia	6,305	1	.01
Washington	29,536	30	.10
W. Virginia	741	0	0.00
Wisconsin	5,348	5	.09
Wyoming	858	2	.23
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
American Samoa	NA	NA	NA
Pacific Tr. Terr.	NA	NA	NA
Unidentified States	NA	3	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 73

Enrollment of Oriental MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71

States	Total MDTA Trainees Enrollment	Total Oriental MDTA Trainees Enrollment	Total Oriental MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	178,978[1]	832[1]	.46
Alabama	2,975	1	.03
Alaska	607	0	0.00
Arizona	3,402	10	.29
Arkansas	1,209	0	0.00
California	14,980	244	1.62
Colorado	3,089	11	.35
Connecticut	2,792	5	.17
Delaware	552	0	0.00
Dist. of C.	720	1	.13
Florida	2,849	1	.03
Georgia	5,514	6	.10
Hawaii	904	279	30.86
Idaho	915	2	.21
Illinois	8,483	11	.12
Indiana	4,135	1	.02
Iowa	2,872	2	.06
Kansas	2,920	3	.10
Kentucky	3,170	0	0.00
Louisiana	2,615	1	.03
Maine	1,012	1	.09
Maryland	2,658	2	.07
Massachusetts	5,989	13	.21
Michigan	6,665	5	.07
Minnesota	3,106	5	.16
Mississippi	2,816	0	0.00

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[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 73 Cont'd

States	Total MDTA Trainees Enrollment	Total Oriental MDTA Trainees Enrollment	Total Oriental MDTA Enrollment as a Percent of Total MDTA Enrollment
Missouri	4,008	2	.04
Montana	999	1	.10
Nebraska	1,422	0	0.00
Nevada	822	1	.12
New Hampshire	742	2	.26
New Jersey	7,625	16	.20
New Mexico	1,055	0	0.00
New York	12,874	112	.86
N. Carolina	4,345	5	.11
N. Dakota	590	0	0.00
Ohio	7,204	4	.05
Oklahoma	3,432	2	.05
Oregon	1,682	6	.35
Pennsylvania	8,940	9	.10
Rhode Island	1,065	1	.09
S. Carolina	2,572	3	.11
S. Dakota	505	0	0.00
Tennessee	3,611	2	.05
Texas	11,101	14	.12
Utah	1,469	6	.40
Vermont	637	1	.15
Virginia	3,450	1	.02
Washington	3,650	30	.82
W. Virginia	1,849	0	0.00
Wisconsin	3,580	5	.13
Wyoming	491	2	.40
Unidentified States	2,312	3	.12

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

TABLE 74

Difference Between Percent of Orientals in
MDTA and Percent of Orientals in Total Population, 1970-71

States	Total Oriental Population as a Percent of Total Population	Oriental MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Orientals in MDTA and Percent of Orientals in Total Population
U.S. TOTAL	.51	.46	-.05
Alabama	.04	.03	-.01
Alaska	.38	0.00	-.38
Arizona	.35	.29	-.06
Arkansas	.06	0.00	-.06
California	1.92	1.62	-.30
Colorado	.42	.35	-.07
Connecticut	.12	.17	.05
Delaware	.16	0.00	-.16
Dist. of C.	.42	.13	-.29
Florida	.10	.03	-.07
Georgia	.07	.10	.03
Hawaii	34.98	30.86	-4.12
Idaho	.38	.21	-.17
Illinois	.28	.12	-.16
Indiana	.08	.02	-.06
Iowa	.07	.06	-.01
Kansas	.12	.10	-.02
Kentucky	.05	0.00	-.05
Louisiana	.06	.03	-.03
Maine	.05	.09	-.04
Maryland	.26	.07	-.19
Massachusetts	.32	.21	-.11
Michigan	.13	.07	-.06
Minnesota	.13	.16	-.03
Mississippi	.08	0.00	-.08

TABLE 74 Cont'd

States	Total Oriental Population as a Percent of Total Population	Oriental MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Orientals in MDTA and Percent of Orientals in Total Population
Missouri	.11	.04	-.07
Montana	.12	.10	-.02
Nebraska	.12	0.00	-.12
Nevada	.41	.12	-.29
New Hampshire	.10	.26	-.16
New Jersey	.20	.20	0.00
New Mexico	.14	0.00	-.14
New York	.55	.86	.31
N. Carolina	.06	.11	.05
N. Dakota	.06	0.00	-.06
Ohio	.10	.05	-.05
Oklahoma	.09	.05	-.04
Oregon	.55	.35	-.20
Pennsylvania	.10	.10	0.00
Rhode Island	.18	.09	-.09
S. Carolina	.05	.11	.06
S. Dakota	.05	0.00	-.05
Tennessee	.07	.05	-.02
Texas	.12	.12	0.00
Utah	.56	.40	-.16
Vermont	.06	.15	.09
Virginia	.13	.02	-.11
Washington	.86	.82	-.04
W. Virginia	.04	0.00	-.04
Wisconsin	.12	.13	.01
Wyoming	.25	.40	.15
Unidentified States	--	.12	--

Source: Tables 58A and 73.

TABLE 75

Enrollment of Other MDTA Trainees
as a Percent of Total Other Population, 1970-71

States	Total Other Population	Total Other MDTA Enrollment	Total of MDTA Trainees as a Percent of Other Population
U.S. TOTAL	178,514,368	112,562[1]	.06
Alabama	2,536,550	1,539	.06
Alaska	274,051	593	.21
Arizona	1,615,472	2,031	.12
Arkansas	1,567,506	818	.05
California	18,078,562	10,023	.05
Colorado	2,122,692	2,564	.12
Connecticut	2,844,480	1,781	.06
Delaware	468,257	181	.03
Dist. of C.	214,609	179	.08
Florida	5,733,892	1,493	.02
Georgia	3,396,659	3,332	.09
Hawaii	192,356	612	.31
Idaho	700,997	802	.11
Illinois	9,645,116	4,079	.04
Indiana	4,827,924	2,269	.04
Iowa	2,786,786	2,584	.09
Kansas	2,128,112	2,226	.10
Kentucky	2,984,729	2,524	.08
Louisiana	2,546,717	1,516	.05
Maine	986,499	892	.09
Maryland	3,208,428	1,228	.03
Massachusetts	5,490,473	4,864	.08
Michigan	7,855,535	4,813	.06
Minnesota	3,741,950	2,665	.07
Mississippi	1,395,127	1,503	.10

[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 75 Cont'd

States	Total Other Population	Total Other MDTA Enrollment	Total of MDTA Trainees as a Percent of Other Population
Missouri	4,185,727	2,683	.06
Montana	664,421	772	.11
Nebraska	1,435,093	1,149	.08
Nevada	451,001	571	.12
New Hampshire	734,035	739	.10
New Jersey	6,378,252	3,847	.04
New Mexico	922,154	934	.10
New York	15,937,934	6,728	.04
N. Carolina	3,907,816	2,505	.06
N. Dakota	600,494	503	.08
Ohio	9,664,026	4,127	.04
Oklahoma	2,286,462	2,390	.10
Oregon	2,039,880	1,359	.06
Pennsylvania	10,759,348	5,814	.05
Rhode Island	918,275	894	.09
S. Carolina	1,797,887	1,366	.07
S. Dakota	631,131	236	.03
Tennessee	3,297,380	1,958	.05
Texas	9,765,596	3,148	.03
Utah	1,035,389	1,198	.11
Vermont	443,033	634	.14
Virginia	3,775,968	2,290	.06
Washington	3,274,939	2,771	.08
W. Virginia	1,675,403	1,726	.10
Wisconsin	4,265,235	2,417	.05
Wyoming	324,010	450	.13
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA
Unidentified States	NA	2,242	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 76

Enrollment of Other MDTA Trainees as a Percent of Total MDTA Enrollment, 1970-71

States	Total MDTA Trainees Enrollment	Total Other MDTA Trainees Enrollment	Total Other MDTA Enrollment as a Percent of Total MDTA Enrollment
U.S. TOTAL	178,978[1]	112,562[1]	62.89
Alabama	2,975	1,539	51.73
Alaska	607	593	97.69
Arizona	3,402	2,031	59.70
Arkansas	1,209	818	67.65
California	14,980	10,023	66.90
Colorado	3,089	2,564	83.00
Connecticut	2,792	1,781	63.78
Delaware	552	181	32,78
Dist. of C.	720	179	24.86
Florida	2,846	1,493	52.45
Georgia	5,514	3,332	60.42
Hawaii	904	612	67.69
Idaho	915	802	87.65
Illinois	8,483	4,079	48.08
Indiana	4,135	2,269	54.87
Iowa	2,872	2,584	89.97
Kansas	2,920	2,226	76.23
Kentucky	3,170	2,524	79.62
Louisiana	2,615	1,516	57.97
Maine	1,012	892	88.14
Maryland	2,658	1,228	46.20
Massachusetts	5,989	4,864	81.21
Michigan	6,665	4,813	72.21
Minnesota	3,106	2,665	85.80
Mississippi	2,816	1,503	53.37

[1] Figures in this table reflect only occupationally related MDTA enrollments and are less than total MDTA enrollments.

TABLE 76 Cont'd

States	Total MDTA Trainees Enrollment	Total Other MDTA Trainees Enrollment	Total Other MDTA Enrollment as a Percent of Total MDTA Enrollment
Missouri	4,008	2,683	66.94
Montana	999	772	77.27
Nebraska	1,422	1,149	80.80
Nevada	822	571	69.46
New Hampshire	742	739	99.59
New Jersey	7,625	3,847	50.45
New Mexico	1,055	934	88.53
New York	12,874	6,728	52.26
N. Carolina	4,345	2,505	57.65
N. Dakota	590	503	85.25
Ohio	7,204	4,127	57.28
Oklahoma	3,432	2,390	69.63
Oregon	1,682	1,359	80.79
Pennsylvania	8,940	5,814	65.03
Rhode Island	1,065	894	83.94
S. Carolina	2,572	1,366	53.11
S. Dakota	505	236	46.73
Tennessee	3,611	1,958	54.22
Texas	11,101	3,148	28.35
Utah	1,469	1,198	81.55
Vermont	637	634	99.52
Virginia	3,450	2,290	66.37
Washington	3,650	2,771	75.91
W. Virginia	1,849	1.726	93.34
Wisconsin	3,580	2,417	67.51
Wyoming	491	450	91.64
Unidentified States	2,312	2,242	96.97

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

TABLE 77

Difference Between Percent of Others in MDTA and Percent of Others in Total Population, 1970-71

States	Total Other Population as a Percent of Total Population	Other MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Others in MDTA and Percent of Others in Total Population
U.S. TOTAL	87.92	62.89	-25.03
Alabama	73.64	51.73	-21.91
Alaska	91.23	97.69	6.46
Arizona	91.09	59.70	-31.39
Arkansas	96.56	67.65	-28.91
California	90.60	66.90	-23.70
Colorado	96.16	83.00	-13.16
Connecticut	93.82	63.78	-30.04
Delaware	85.43	32.78	-52.65
Dist. of C.	28.36	24.86	- 3.50
Florida	84.45	52.45	-32.00
Georgia	74.00	60.42	-13.58
Hawaii	24.98	67.69	42.71
Idaho	98.37	87.65	-10.72
Illinois	86.78	48.08	-38.70
Indiana	92.95	54.87	-38.08
Iowa	98.66	89.97	- 8.69
Kansas	94.72	76.23	-18.49
Kentucky	92.73	79.62	-13.11
Louisiana	69.93	57.97	-11.96
Maine	99.44	88.14	-11.30
Maryland	81.79	46.20	-35.59
Massachusetts	96.50	81.21	-15.29
Michigan	88.51	72.21	-16.30
Minnesota	98.34	85.80	-12.54
Mississippi	62.93	53.37	- 9.56

TABLE 77 Cont'd

States	Total Other Population as a Percent of Total Population	Other MDTA Enrollment as a Percent of Total MDTA Enrollment	Difference Between Percent of Others in MDTA and Percent of Others in Total Population
Missouri	89.50	66.94	-22.56
Montana	95.68	77.27	-18.41
Nebraska	96.73	80.80	-15.93
Nevada	92.27	69.46	-22.81
New Hampshire	99.50	99.59	.09
New Jersey	88.98	50.45	-38.53
New Mexico	90.76	88.53	- 2.23
New York	87.37	52.26	-35.11
N. Carolina	76.89	57.65	-19.24
N. Dakota	97.20	85.25	-11.95
Ohio	90.72	57.28	-33.44
Oklahoma	89.34	69.63	-19.71
Oregon	97.53	80.79	-16.74
Pennsylvania	91.22	65.03	-26.19
Rhode Island	96.99	83.94	-13.05
S. Carolina	69.40	53.11	-16.29
S. Dakota	94.83	46.73	-48.10
Tennessee	84.03	54.22	-29.81
Texas	87.21	28.35	-58.86
Utah	97.74	81.55	-16.19
Vermont	99.70	99.52	- .18
Virginia	81.22	66.37	-14.85
Washington	96.06	75.91	-20.15
W. Virginia	94.33	93.34	- .99
Wisconsin	96.54	67.51	-29.03
Wyoming	97.47	91.64	- 5.83
Unidentified States	--	96.97	--

Source: Tables 62A and 76.

TABLE 78

Enrollment of Negro EOA Trainees as a Percent of Total Negro Population, 1970-71

States	Total Negro Population	Total EOA Negro Enrollment	Total EOA Negro Trainees as a Percent of Total Negro Population
U.S. TOTAL	22,580,289	112,880[1]	.49
Alabama	903,467	469	.05
Alaska	8,911	20	.22
Arizona	53,344	869	1.62
Arkansas	352,445	3,192	.90
California	1,400,143	7,029	.50
Colorado	66,411	640	.96
Connecticut	181,177	1,849	1.02
Delaware	78,276	253	.32
Dist. of C.	537,712	4,643	.86
Florida	1,041,651	4,980	.47
Georgia	1,187,149	3,002	.25
Hawaii	7,573	29	.38
Idaho	2,130	24	1.12
Illinois	1,425,674	5,974	.41
Indiana	357,464	1,818	.50
Iowa	32,596	451	1.38
Kansas	106,977	526	.49
Kentucky	230,793	921	.39
Louisiana	1,086,832	2,449	.22
Maine	2,800	122	4.35
Maryland	699,479	4,503	.64
Massachusetts	175,817	1,590	.90
Michigan	991,066	2,794	.28
Minnesota	34,868	618	1.77
Mississippi	815,770	2,644	.32

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[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 78 Cont'd

States	Total Negro Population	Total EOA Negro Enrollment	Total EOA Negro Trainees as a Percent of Total Negro Population
Missouri	480,172	2,832	.58
Montana	1,995	43	2.15
Nebraska	39,911	1,114	2.15
Nevada	27,762	554	1.95
New Hampshire	2,505	0	0.00
New Jersey	770,292	4,972	.64
New Mexico	19,555	133	.68
New York	2,168,949	10,409	.47
N. Carolina	1,126,478	3,449	.30
N. Dakota	2,494	20	.80
Ohio	970,477	6,425	.66
Oklahoma	171,892	1,874	1.09
Oregon	26,308	446	1.69
Pennsylvania	1,399,005	10,985	1.08
Rhode Island	25,338	590	2.32
S. Carolina	789,041	1,975	.25
S. Dakota	1,627	38	2.33
Tennessee	621,261	2,279	.36
Texas	1,399,005	6,226	.44
Utah	6,617	38	.57
Vermont	761	23	3.02
Virginia	861,368	2,476	.28
Washington	71,308	1,499	2.10
W. Virginia	67,342	471	.69
Wisconsin	128,224	1,581	1.23
Wyoming	2,586	21	.81
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA
Unident. States	NA	NA	NA

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 79

Total Negro Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71

States	Total EOA Enrollment	Total Negro EOA Enrollment	Total Negro EOA Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	252,038[1]	112,880[1]	44.78
Alabama	668	469	70.20
Alaska	559	20	3.57
Arizona	3,611	869	24.06
Arkansas	4,851	3,192	65.80
California	24,411	7,029	28.79
Colorado	4,494	640	14.24
Connecticut	3,367	1,849	54.91
Delaware	348	253	72.70
Dist. of C.	4,991	4,643	93.02
Florida	6,540	4,980	76.14
Georgia	4,301	3,002	69.79
Hawaii	1,317	29	2.20
Idaho	1,034	24	2.32
Illinois	9,028	5,974	66.17
Indiana	3,072	1,818	59.17
Iowa	1,903	451	23.69
Kansas	1,781	526	29.53
Kentucky	4,512	921	20.41
Louisiana	3,175	2,449	77.13
Maine	2,177	122	5.60
Maryland	5,368	4,503	83.88
Massachusetts	7,546	1,590	21.07
Michigan	6,684	2,794	41.80
Minnesota	4,465	618	13.84
Mississippi	3,103	2,644	85.20

[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 79 Cont'd

States	Total EOA Enrollment	Total Negro EOA Enrollment	Total Negro EOA Enrollment as a Percent of Total EOA Enrollment
Missouri	4,955	2,832	57.15
Montana	1,388	43	3.09
Nebraska	1,898	1,114	58.69
Nevada	904	544	60.17
New Hampshire	591	0	0.00
New Jersey	8,601	4,972	57.80
New Mexico	2,919	133	4.55
New York	19,909	10,409	52.28
N. Carolina	4,511	3,449	76.45
N. Dakota	646	20	3.09
Ohio	10,636	6,425	60.40
Oklahoma	4,480	1,874	41.83
Oregon	4,341	446	10.27
Pennsylvania	20,670	10,985	53.14
Rhode Island	1,654	590	35.67
S. Carolina	2,335	1,975	84.58
S. Dakota	1,072	38	3.54
Tennessee	4,366	2,279	52.19
Texas	13,901	6,228	44.78
Utah	2,023	38	1.87
Vermont	999	23	2.30
Virginia	3,436	2,476	72.06
Washington	6,533	1,499	22.94
W. Virginia	5,127	471	9.18
Wisconsin	4,728	1,581	33.43
Wyoming	332	21	6.32
Guam	NA		
Puerto Rico	NA		
Virgin Isl.	NA		
Am. Samoa	NA		
Pacific Tr. Terr.	NA		
Unidentified States	5,777	1,008	17.44

*Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

TABLE 80

Difference Between the Percent of Negroes Enrolled in EOA Programs and the Percent of Negroes in the Total Population, 1970-71

States	Total Negro Population as a Percent of Total Population	Negro EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Negroes Enrolled in EOA and Percent of Negroes in Total Population
U.S. TOTAL	11.12	44.78	33.66
Alabama	26.23	70.20	43.97
Alaska	2.96	3.57	.61
Arizona	3.00	24.06	21.06
Arkansas	18.32	65.80	47.48
California	7.01	28.79	21.78
Colorado	3.00	14.24	11.24
Connecticut	5.97	54.91	48.94
Delaware	14.28	72.70	58.42
Dist. of C.	71.07	93.02	21.95
Florida	15.34	76.14	60.80
Georgia	25.86	69.79	43.93
Hawaii	.98	2.20	1.22
Idaho	.29	2.32	2.03
Illinois	12.82	66.17	53.35
Indiana	6.88	59.17	52.29
Iowa	1.15	23.69	22.54
Kansas	4.76	29.53	24.77
Kentucky	7.17	20.41	13.24
Louisiana	29.84	77.13	47.29
Maine	.28	5.60	5.32
Maryland	17.83	83.88	66.05
Massachusetts	3.09	21.07	17.98
Michigan	11.16	41.80	30.64
Minnesota	.91	13.84	12.93
Mississippi	36.79	85.20	48.41

TABLE 80 Cont'd

States	Total Negro Population as a Percent of Total Population	Negro EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Negroes Enrolled in EOA and Percent of Negroes in Total Population
Missouri	10.26	57.15	46.89
Montana	.28	3.09	2.81
Nebraska	2.69	58.69	56.00
Nevada	5.68	60.17	54.59
New Hampshire	.33	0.00	.33
New Jersey	10.74	57.80	47.06
New Mexico	1.92	4.55	2.63
New York	11.89	52.28	40.39
N. Carolina	22.16	76.45	54.29
N. Dakota	.40	3.09	2.69
Ohio	9.11	60.40	51.29
Oklahoma	6.11	41.83	35.72
Oregon	1.25	10.27	9.02
Pennsylvania	8.61	53.14	44.53
Rhode Island	2.67	35.67	33.00
S. Carolina	30.45	84.58	54.13
S. Dakota	.24	3.54	3.30
Tennessee	15.83	52.19	36.36
Texas	12.49	44.78	32.29
Utah	.62	1.87	2.49
Vermont	.17	2.30	2.13
Virginia	18.53	72.06	53.53
Washington	2.09	22.94	20.85
W. Virginia	3.86	9.18	5.32
Wisconsin	2.90	33.43	30.53
Wyoming	.77	6.32	5.55

*Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

American Indian enrollments are less noteworty because there are fewer persons in this group either in the population or in training programs. Nationally the percent enrolled was 2.32 percent compared with only 0.36 percent in the population. Differences among individual States ranged from twenty-seven percentage points (South Dakota) more enrolled than in the population to a minus three percentage points (Alaska). The States with large Indian populations -- Arizona, California and Oklahoma -- have higher percentages enrolled than in the population by 13.62 points, 0.45 points, and 4.66 points respectively.

Orientals are not represented in EOA programs to the extent of their representation in the population except by very small amounts in less than one-third of the States.

The national majority is underrepresented nationally and in every State except Hawaii by substantial differences in percentage points.

TABLE 81

Enrollment of American Indian EOA Trainees as a Percent of Total American Indian Population, 1970-71

States	Total American Indian Population	Total EOA American Indian Enrollment	Total EOA American Indian Trainees as a Percent of Total American Indian Population
U.S. TOTAL	739,940	5,871[1]	.79
Alabama	2,443	0	0.00
Alaska	16,276	15	.09
Arizona	95,812	687	.71
Arkansas	2,014	29	1.43
California	91,018	222	.24
Colorado	8,836	48	.54
Connecticut	2,222	7	.31
Delaware	656	0	0.00
Dist. of C.	956	20	2.09
Florida	6,677	19	.28
Georgia	2,347	4	.17
Hawaii	1,126	8	.71
Idaho	2,130	146	6.85
Illinois	11,413	66	.57
Indiana	3,887	24	.61
Iowa	2,992	9	.30
Kansas	8,672	14	.16
Kentucky	1,531	1	.06
Louisiana	5,294	2	.03
Maine	2,195	62	2.82
Maryland	4,239	20	.47
Massachusetts	4,475	48	1.07
Michigan	16,845	80	.47
Minnesota	23,128	501	2.16
Mississippi	4,113	21	.51

[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 81 Cont'd

States	Total American Indian Population	Total EOA American Indian Enrollment	Total EOA American Indian Trainees as a Percent of Total American Indian Population
Missouri	5,405	20	.37
Montana	27,130	305	1.12
Nebraska	6,624	170	2.56
Nevada	7,933	175	2.20
New Hampshire	361	1	.27
New Jersey	4,706	13	.27
New Mexico	19,555	761	3.89
New York	28,355	154	.54
N. Carolina	44,406	234	.52
N. Dakota	14,369	148	1.02
Ohio	6,654	14	.21
Oklahoma	98,468	381	.38
Oregon	13,510	58	.42
Pennsylvania	5,533	67	1.21
Rhode Island	1,390	5	.35
S. Carolina	2,241	2	.08
S. Dakota	32,365	339	1.04
Tennessee	2,276	5	.21
Texas	17,957	24	.13
Utah	11,273	186	1.64
Vermont	229	0	0.00
Virginia	4,853	3	.06
Washington	33,386	439	1.31
W. Virginia	751	1	.13
Wisconsin	18,924	210	1.10
Wyoming	4,980	34	.68
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pacific Tr. Terr.	NA	NA	NA
Unidentified States		69	0.00

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administrat Washington, D.C., September, 1972.

TABLE 82

Total American Indian Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71

States	Total EOA Enrollment	Total American Indian EOA Enrollment	Total American Indian EOA Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	252,038 [1]	5,871[1]	2.32
Alabama	668	0	0.00
Alaska	559	15	2.68
Arizona	3,611	687	19.02
Arkansas	4,851	29	.59
California	24,411	222	.90
Colorado	4,494	48	1.06
Connecticut	3,367	7	.20
Delaware	348	0	0.00
Dist. of C.	4,991	20	.40
Florida	6,540	19	.29
Georgia	4,301	4	.09
Hawaii	1,317	8	.60
Idaho	1,034	146	14.11
Illinois	9,028	66	.73
Indiana	3,072	24	.78
Iowa	1,903	9	.47
Kansas	1,781	14	.78
Kentucky	4,512	1	.02
Louisiana	3,175	2	.06
Maine	2,177	62	2.84
Maryland	5,368	20	.37
Massachusetts	7,546	48	.63
Michigan	6,684	80	1.19
Minnesota	4,465	501	11.22
Mississippi	3,103	21	.67

[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 82 Cont'd

States	Total EOA Enrollment	Total American Indian EOA Enrollment	Total American Indian EOA Enrollment as a Percent of Total EOA Enrollment
Missouri	4,955	20	.40
Montana	1,388	305	21.97
Nebraska	1,898	170	8.95
Nevada	904	175	19.35
New Hampshire	591	1	.16
New Jersey	8,601	13	.15
New Mexico	2,919	761	26.07
New York	19,909	154	.77
N. Carolina	4,511	234	5.18
N. Dakota	646	148	22.91
Ohio	10,636	14	.13
Oklahoma	4,480	381	8.50
Oregon	4,341	58	1.33
Pennsylvania	20,670	67	.32
Rhode Island	1,654	5	.30
S. Carolina	2,335	2	.08
S. Dakota	1,072	339	31.62
Tennessee	4,366	5	.11
Texas	13,901	24	.17
Utah	2,023	186	9.19
Vermont	999	0	0.00
Virginia	3,436	3	.08
Washington	6,533	439	6.71
W. Vriginia	5,127	1	.01
Wisconsin	4,728	210	4.44
Wyoming	332	34	10.24
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA
Unident. States	5,777	69	1.19

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and Training Occupation", U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 83

Difference Between the Percent of American Indians Enrolled in EOA Programs and the Percent of American Indians in the Total Population, 1970-71

States	Total American Indian Population as a Percent of Total Population	American Indian EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of American Indians Enrolled in EOA and Percent of American Indians in Total Population
U.S. TOTAL	.36	2.32	1.96
Alabama	.07	0.00	-.07
Alaska	5.41	2.68	-2.73
Arizona	5.40	19.02	13.62
Arkansas	.10	.59	.49
California	.45	.90	.45
Colorado	.40	1.06	.66
Connecticut	.07	.20	.13
Delaware	.11	0.00	-.11
Dist. of C.	.12	.40	.28
Florida	.09	.29	.20
Georgia	.05	.09	.04
Hawaii	.15	.60	.45
Idaho	.29	14.11	13.82
Illinois	.10	.73	.63
Indiana	.07	.78	.71
Iowa	.10	.47	.37
Kansas	.38	.78	.40
Kentucky	.04	.07	.03
Louisiana	.14	.06	-.08
Maine	.22	2.84	2.62
Maryland	.10	.37	.27
Massachusetts	.07	.63	.56
Michigan	.18	1.19	1.01
Minnesota	.60	11.22	10.62
Mississippi	.18	.67	.49

TABLE 83 Cont'd

States	Total American Indian Population as a Percent of Total Population	American Indian EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of American Indians Enrolled in EOA and Percent of American Indians in Total Population
Missouri	.11	.40	.29
Montana	3.90	21.97	18.07
Nebraska	.44	8.95	8.51
Nevada	1.62	19.35	17.73
New Hampshire	.04	.16	.12
New Jersey	.06	.15	.09
New Mexico	1.92	26.07	24.15
New York	.15	.77	.62
N. Carolina	.87	5.18	4.31
N. Dakota	2.32	22.91	20.59
Ohio	.06	.13	.07
Oklahoma	3.84	8.50	4.66
Oregon	.64	1.33	.69
Pennsylvania	.04	.32	.28
Rhode Island	.14	.30	.16
S. Carolina	.08	.08	0.00
S. Dakota	4.86	31.62	26.76
Tennessee	.05	.11	.06
Texas	.16	.17	.01
Utah	1.05	9.19	8.14
Vermont	.05	0.00	-.05
Virginia	.10	.08	-.02
Washington	.97	6.71	5.74
W. Virginia	.04	.01	-.03
Wisconsin	.42	4.44	4.02
Wyoming	1.49	10.24	8.75

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. Spetember, 1972.

TABLE 84

Enrollment of Oriental EOA Trainees as a Percent of Total Oriental Population, 1970-71

States	Total Oriental Population	Total EOA Oriental Enrollment	Total EOA Oriental Trainees as a Percent of Total Oriental Population
U.S. TOTAL	1,026,352	881[1]	.08
Alabama	1,705	0	0.00
Alaska	1,144	10	.87
Arizona	6,272	2	.03
Arkansas	1,330	3	.22
California	383,411	316	.08
Colorado	9,320	7	.07
Connecticut	3,830	11	.28
Delaware	918	1	.10
Dist. of C.	3,233	3	.09
Florida	7,223	0	0.00
Georgia	3,420	4	.11
Hawaii	269,346	232	.08
Idaho	2,753	1	.03
Illinois	31,773	1	0.00
Indiana	4,394	2	.04
Iowa	2,002	0	0.00
Kansas	2,817	0	0.00
Kentucky	1,653	1	.06
Louisiana	2,463	0	0.00
Maine	554	2	.36
Maryland	10,253	4	.03
Massachusetts	18,405	15	.08
Michigan	11,628	12	.10
Minnesota	5,025	4	.07
Mississippi	1,902	0	0.00

[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 84 Cont'd

States	Total Oriental Population	Total EOA Oriental Enrollment	Total EOA Oriental Trainees as a Percent of Total Oriental Population
Missouri	5,197	6	.11
Montana	863	3	.34
Nebraska	1,865	5	.26
Nevada	2,042	2	.09
New Hampshire	780	0	0.00
New Jersey	14,914	17	.11
New Mexico	1,503	0	0.00
New York	101,729	51	.05
N. Carolina	3,359	0	0.00
N. Dakota	404	0	0.00
Ohio	10,860	8	.07
Oklahoma	2,407	8	.33
Oregon	11,657	11	.09
Pennsylvania	12,514	35	.27
Rhode Island	1,722	4	.23
S. Carolina	1,347	0	0.00
S. Dakota	384	3	.78
Tennessee	2,770	1	.03
Texas	14,172	14	.09
Utah	5,994	8	.13
Vermont	307	0	0.00
Virginia	6,305	0	0.00
Washington	29,536	60	.20
W. Virginia	741	1	.13
Wisconsin	5,348	3	.05
Wyoming	858	1	.11
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA
Unident. States	NA	NA	NA

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

TABLE 85

Total Oriental Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71

States	Total EOA Enrollment	Total Oriental EOA Enrollment	Total Oriental EOA Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	252,038[1]	881[1]	.34
Alabama	668	0	0.00
Alaska	559	10	1.78
Arizona	3,611	2	.05
Arkansas	4,851	3	.06
California	24,411	316	1.29
Colorado	4,494	7	.15
Connecticut	3,367	11	.32
Delaware	348	1	.28
Dist. of C.	4,991	3	.06
Florida	6,540	0	0.00
Georgia	4,301	4	.09
Hawaii	1,317	232	17.61
Idaho	1,034	1	.09
Illinois	9,028	1	.01
Indiana	3,072	2	.06
Iowa	1,903	0	0.00
Kansas	1,781	0	0.00
Kentucky	4,512	1	.02
Louisiana	3,175	0	0.00
Maine	2,177	2	.09
Maryland	5,368	4	.07
Massachusetts	7,546	15	.19
Michigan	6,684	12	.17
Minnestoa	4,465	4	.08
Mississippi	3,103	0	0.00

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[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 85 Cont'd

States	Total EOA Enrollment	Total Oriental EOA Enrollment	Total Oriental EOA Enrollment as a Percent of Total EOA Enrollment
Missouri	4,955	6	.12
Montana	1,388	3	.21
Nebraska	1,898	5	.26
Nevada	904	2	.22
New Hampshire	591	0	0.00
New Jersey	8,601	17	.19
New Mexico	2,919	0	0.00
New York	19,909	51	.25
N. Carolina	4,511	0	0.00
N. Dakota	646	0	0.00
Ohio	10,636	8	.07
Oklahoma	4,480	8	.17
Oregon	4,341	11	.25
Pennsylvania	20,670	35	.16
Rhode Island	1,654	4	.24
S. Carolina	2,335	0	0.00
S. Dakota	1,072	3	.27
Tennessee	4,366	1	.02
Texas	13,901	14	.10
Utah	2,023	8	.39
Vermont	999	0	0.00
Virginia	3,435	0	0.00
Washington	6,533	60	.91
W. Virginia	5,127	1	.01
Wisconsin	4,728	3	.06
Wyoming	332	1	.30
Guam	NA	NA	NA
Puerto Rico	NA	NA	NA
Virgin Isl.	NA	NA	NA
Am. Samoa	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA
Unident. States	5,777	9	.15

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and Training Occupation", U.S. Department of Labor, Manpower Administration, Washington, D.C., September, 1972.

TABLE 86

The Difference Between the Percent of Orientals Enrolled in EOA Programs and the Percent of Orientals in the Total Population, 1970-71

States	Total Oriental Population as a Percent of Total Population	Oriental EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Orientals Enrolled in EOA and Percent of Orientals in Total Population
U.S. TOTAL	.51	.34	-.17
Alabama	.04	0.00	-.04
Alaska	.38	1.78	1.40
Arizona	.35	.05	-.30
Arkansas	.06	.06	0.00
California	1.92	1.29	-.63
Colorado	.42	.15	-.27
Connecticut	.12	.32	.20
Delaware	.16	.28	.12
Dist. of C.	.42	.06	-.36
Florida	.10	0.00	-.10
Georgia	.07	.09	.02
Hawaii	34.98	17.61	-17.37
Idaho	.38	.09	-.29
Illinois	.28	.01	-.27
Indiana	.08	.06	-.02
Iowa	.07	0.00	-.07
Kansas	.12	0.00	-.12
Kentucky	.05	.02	-.03
Louisiana	.06	0.00	-.04
Maine	.05	.09	.04
Maryland	.26	.07	-.19
Massachusetts	.32	.19	-.13
Michigan	.13	.17	.04
Minnesota	.13	.08	-.05
Mississippi	.08	0.00	-.08

TABLE 86 Cont'd

States	Total Oriental Population as a Percent of Total Population	Oriental EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Orientals Enrolled in EOA and Percent of Orientals in Total Population
Missouri	.11	.12	.01
Montana	.12	.21	.09
Nebraska	.12	.26	.14
Nevada	.41	.22	-.19
New Hampshire	.10	0.00	-.10
New Jersey	.20	.19	-.01
New Mexico	.14	0.00	-.14
New York	.55	.25	-.30
N. Carolina	.06	0.00	-.06
N. Dakota	.06	0.00	-.06
Ohio	.10	.07	-.03
Oklahoma	.09	.17	.06
Oregon	.55	.25	-.30
Pennsylvania	.10	.16	.06
Rhode Island	.18	.24	.06
S. Carolina	.05	0.00	-.05
S. Dakota	.05	.27	.22
Tennessee	.07	.02	-.05
Texas	.12	.10	-.02
Utah	.56	.39	-.17
Vermont	.06	0.00	-.06
Virginia	.13	0.00	-.13
Washington	.86	.91	.05
W. Virginia	.04	.01	-.03
Wisconsin	.12	.06	-.06
Wyoming	.25	.30	.05

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

TABLE 87

Enrollment of Other EOA Trainees as a Percent of Total Other Population, 1970-71

States	Total Other Population	Total EOA Other Enrollment	Total EOA Other Trainees as a Percent of Total Other Population
U.S. Total	178,514,368	16,868[1]	.01
Alabama	2,536,550	11	.00
Alaska	274,051	440	.16
Arizona	1,615,472	353	.02
Arkansas	1,567,506	74	.00
California	18,078,562	1,887	.01
Colorado	2,112,692	144	.01
Connecticutt	2,844,480	327	.01
Delaware	468,257	31	.01
Dist. of C.	214,609	143	.06
Florida	5,733,892	117	.00
Georgia	3,396,659	559	.01
Hawaii	192,356	798	.41
Idaho	700,997	69	.01
Illinois	9,645,116	287	.00
Indiana	4,827,924	156	.00
Iowa	2,786,786	43	.00
Kansas	2,128,112	85	.00
Kentucky	2,984,729	83	.00
Louisiana	2,546,717	48	.00
Maine	986,499	101	.01
Maryland	3,208,428	70	.00
Massachusetts	5,490,473	762	.01
Michigan	7,855,535	205	.00
Minnesota	3,741,950	122	.00
Mississippi	1,395,127	41	.00

[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 87 Cont'd

States	Total Other Population	Total EOA Other Enrollment	Total EOA Other Trainees as a Percent of Total Other Population
Missouri	4,185,727	249	.01
Montana	664,421	59	.01
Nebraska	1,435,093	53	.00
Nevada	451,001	73	.01
New Hampshire	734,035	503	.06
New Jersey	6,378,252	859	.01
New Mexico	922,154	370	.04
New York	15,937,934	2,418	.01
N. Carolina	3,907,816	98	.00
N. Dakota	600,494	80	.01
Ohio	9,664,026	519	.01
Oklahoma	2,286,462	111	.00
Oregon	2,039,880	980	.04
Pennsylvania	10,759,348	1,323	.01
Rhode Island	918,275	57	.01
S. Carolina	1,797,887	44	.00
S. Dakota	631,131	52	.01
Tennessee	3,297,380	130	.00
Texas	9,765,596	576	.01
Utah	1,035,389	67	.01
Vermont	443,033	22	.00
Virginia	3,775,968	175	.00
Washington	3,274,939	434	.01
W. Virginia	1,675,403	145	.01
Wisconsin	4,265,235	487	.01
Wyoming	324,010	28	.01

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.

Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administratio Washington, D.C., September, 1972.

TABLE 88

Total Other Enrollment in EOA Programs as a Percent of Total EOA Enrollment, 1970-71

States	Total EOA Trainees Enrollment	Total Other EOA Trainees Enrollment	Total Other EOA Enrollment as a Percent of Total EOA Enrollment
U.S. TOTAL	252,038[1]	20,061[1]	7.95
Alabama	668	11	1.64
Alaska	559	440	78.71
Arizona	3,611	353	9.77
Arkansas	4,851	74	1.52
California	24,411	1,887	7.73
Colorado	4,494	144	3.20
Connecticut	3,367	327	9.71
Delaware	348	31	8.90
Dist. of C.	4,991	143	2.86
Florida	6,540	117	1.78
Georgia	4,301	559	12.99
Hawaii	1,317	798	60.59
Idaho	1,034	69	6.67
Illinois	9,028	287	3.17
Indiana	3,072	156	5.07
Iowa	1,903	43	2.25
Kansas	1,781	85	4.77
Kentucky	4,512	83	1.83
Louisiana	3,175	48	1.51
Maine	2,177	101	4.63
Maryland	5,368	70	1.30
Massachusetts	7,546	762	10.09
Michigan	6,684	205	3.06
Minnesota	4,465	122	2.73
Mississippi	3,103	41	1.32

[1] Figures in this table reflect only occupationally related EOA enrollments and are less than total EOA enrollments.

TABLE 88 Cont'd

States	Total EOA Trainees Enrollment	Total Other EOA Trainees Enrollment	Total Other EOA Enrollment as a Percent of Total EOA Enrollment
Missouri	4,955	249	5.02
Montana	1,388	59	4.25
Nebraska	1,898	53	2.79
Nevada	904	73	8.07
New Hampshire	591	503	85.10
New Jersey	8,601	859	9.98
New Mexico	2,919	370	12.67
New York	19,909	2,418	12.14
N. Carolina	4,511	98	2.17
N. Dakota	646	80	12.38
Ohio	10,636	519	4.87
Oklahoma	4,480	111	2.47
Oregon	4,341	980	22.57
Pennsylvania	20,670	1,323	6.40
Rhode Island	1,654	57	3.44
S. Carolina	2,335	44	1.88
S. Dakota	1,072	52	4.85
Tennessee	4,366	130	2.97
Texas	13,901	576	4.14
Utah	2,023	67	3.31
Vermont	999	22	2.20
Virginia	3,436	175	5.09
Washington	6,533	434	6.64
W. Virginia	5,127	145	2.82
Wisconsin	4,728	487	10.30
Wyoming	332	28	8.43

Source: Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972

TABLE 89

Difference Between the Percent of Others Enrolled in EOA Programs and the Percent of Others in the Total Population, 1970-71

States	Total Other EOA Population as a Percent of Total Population	Other EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Others in EOA and Percent of Others in Total Population
U.S. TOTAL	87.92	7.95	-79.97
Alabama	73.64	1.64	-72.00
Alaska	91.23	78.71	-12.52
Arizona	91.09	9.77	-81.32
Arkansas	96.56	1.52	-95.04
California	90.60	7.73	-82.87
Colorado	96.16	3.20	-92.96
Connecticut	93.82	9.71	-84.11
Delaware	85.43	8.90	-75.53
Dist. of C.	28.36	2.86	-25.50
Florida	84.45	1.78	-82.67
Georgia	74.00	12.99	-61.01
Hawaii	24.98	60.59	35.61
Idaho	98.37	6.67	-91.70
Illinois	86.78	3.17	-83.61
Indiana	92.95	5.07	-87.88
Iowa	98.66	2.25	-96.41
Kansas	94.72	4.77	-89.95
Kentucky	92.73	1.83	-90.90
Louisiana	69.93	1.51	-68.42
Maine	99.44	4.63	-94.81
Maryland	81.79	1.30	-80.49
Massachusetts	96.50	10.09	-86.41
Michigan	88.51	3.06	-85.45
Minnesota	98.34	2.73	-95.61
Mississippi	62.93	1.32	-91.61

TABLE 89 Cont'd

States	Total Other EOA Population as a Percent of Total Population	Other EOA Enrollment as a Percent of Total EOA Enrollment	Difference Between Percent of Others in EOA and Percent of Others in Total Population
Missouri	89.50	5.02	-84.48
Montana	95.68	4.25	-91.43
Nebraska	96.73	2.79	-93.94
Nevada	92.27	8.07	-84.20
New Hampshire	99.50	85.10	-14.40
New Jersey	88.98	9.98	-79.00
New Mexico	90.76	12.67	-78.09
New York	87.37	12.14	-75.23
N. Carolina	76.89	2.17	-74.72
N. Dakota	97.20	12.38	-84.82
Ohio	90.72	4.87	-85.85
Oklahoma	89.34	2.47	-86.87
Oregon	97.53	22.57	-74.96
Pennsylvania	91.22	6.40	-84.82
Rhode Island	96.99	3.44	-93.55
S. Carolina	69.40	1.88	-67.52
S. Dakota	94.83	4.85	-89.98
Tennessee	84.03	2.97	-81.06
Texas	87.21	4.14	-83.07
Utah	97.74	3.31	-94.43
Vermont	99.70	2.20	-97.50
Virginia	81.22	5.09	-76.13
Washington	96.06	6.64	-89.42
W. Virginia	94.33	2.82	-91.51
Wisconsin	96.54	10.30	-86.24
Wyoming	97.47	8.43	-89.04

Source: 1970 Census of the Population, U.S. Department of Commerce, Bureau of the Census, PC(1)-B1, U.S. Summary.
Computer Printout: "Trainees Enrolled by Race, Minority Group, and by Training Occupation," U.S. Department of Labor, Manpower Administration, Washington, D.C. September, 1972.

Chapter VII

COST AND FINANCIAL SUPPORT OF VOCATIONAL EDUCATION AND MANPOWER TRAINING

Federal Expenditures for All Programs

Federal appropriations and Federal expenditures for vocational education and manpower training are approximately the same; whatever differences do exist in expenditures represent variations in program operations. U.S. Department of Labor publications usually give program allocations and expenditures, with unexpended funds shown carried over from one Fiscal year to another. The data in this report were intended to be expenditures only, but for 1970-71 and previous years the U.S. Department of Labor has no way of compiling expenditures by State and program.[1] It is obviously inaccurate to use allocation figures for manpower programs while using actual expenditures for vocational education in making comparisons and summary compilations. Nevertheless, this has been done in a few of the tables in this chapter -- clearly indicated in each case -- for the sole purpose of getting some idea of the total and comparative costs for all programs nationally and within each State.

Cost and financial data ordinarily are the most reliable measurements available of vocational education and manpower training, since they are subject to audit. As available however, they are greatly lacking in detail. Program expenditures and a few other sub-totals are reported, but only a few States collect any kind of financial data on programs by occupation. The problem in vocational education is largely the traditional bookkeeping system used by educational institutions, in which budget categories are by kind of expenditure rather than by instructional unit. Even where more detailed cost accounting makes it possible to identify major budget categories by instructional units, many shared costs such as capital expenditures and utilities are not included. Genuine accountability in which the cost of instructional programs can be related to standards of efficiency and to particular outputs will be possible only when cost accounting in educational institutions becomes more detailed and uniform. In the meantime, the available data do permit a number of analyses showing vocational education and manpower costs related to population and economic indices in each State, as well as comparisons of the States and of the major program categories.

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[1] After considerable effort over a period of several weeks the Report Analysis Division, Office of Financial and Manpower Information, of the Manpower Administration was unable to develop these data from reports on file in Washington, D.C. Very few if any of the individual States have them. The Manpower [illegible]a System was designed to provide obligations (training allocations) by both State and Program, but expenditures by Program only. Steps are now being taken to provide both.

Table 90 shows the total Federal expenditures (allocations in the case of manpower programs) for all vocational education and manpower training in the Nation and in each State during the 1970-71 Fiscal year. Table 91 shows percentages of the total represented by vocational education expenditures, MDTA allocations, and EOA allocations. The total was a little less than one and one-quarter billion dollars. The largest part of this went for the EOA programs, $510 million, or 41.2 percent. Vocational education received $395 million, or 31.8 percent. MDTA was only slightly lower with $336 million, or 27.1 percent.

Variations from these national percentages in individual States are greater than might be expected, probably because of differences in public policy, program management, and recognition of need. For example, the range in the portion of Federal vocational/manpower funds used for vocational education was from 54.1 percent in Oklahoma to 18.9 percent in Alaska and 5.6 percent in the District of Columbia. The relative amount of Federal funds going into MDTA programs varied from 53.6 percent in the District of Columbia and 53.1 percent in Alaska to 16.6 percent in New Mexico. For EOA the States varied from 58.5 percent in New Mexico to 12.6 percent in Wyoming.

Federal cost per student. Table 92A contains the Federal expenditure/allocation per student or trainee in 1970-71 for the Nation and for each individual State. These costs are also given for vocational education, MDTA, and EOA programs separately. Table 92B shows the ranking of the States in Federal costs per student or trainee for all programs. The national mean was $129 per student or trainee.

Obviously several factors quite different in vocational education and the manpower programs result in wide differences in cost per student or trainee, but the cost figures are so extremely far apart that comparisons are almost meaningless: $43 Federal cost per student in vocational education, $1,875 per trainee in MDTA, and $2,173 per trainee in EOA programs.

The explanation is found in the Federal Government policy of paying all or nearly all the cost of training in the manpower programs and only part of the cost in vocational education. Moreover, training programs for the disadvantaged are usually more expensive than for persons who are not disadvantaged. Probably the major difference is in the additional benefits paid to trainees under most manpower programs, including subsistance allowances, medical care, transportation, and testing and placement services. Finally, a small part of the difference may be accounted for by the fact that the manpower figures are allocations, while actual expenditures are used for vocational education.

Variations in Federal cost per student among the States are due in part to the relative strength of vocational education compared with the manpower programs. Thus, in Massachusetts, Rhode Island, Nevada, and West Virginia, where the manpower programs train proportionately higher numbers than vocational education, the total Federal cost is more than $200 per student or trainee. Alaska, Vermont, South Dakota, New Mexico, and Montana are also in this cost range, but apparently because of different circumstances. In thirteen States the Federal cost per trainee is below $100, and most of these States have proportionately stronger vocational education programs than manpower: Florida, Utah, North Carolina, Washington, Illinois,

TABLE 90

Total Federal Expenditures for Vocational Education and Allocations for MDTA and EOA Programs, 1970-71

States	Total Federal Expenditures/ Allocations for Programs	Total Federal Expenditures for Vocational Education	Federal Allocations for MDTA Programs	Federal Allocations for EOA Programs[2]
U.S. TOTAL	$1,240,146,542	$394,703,542	$335,752,000[1]	$509,691,000[3]
Alabama	21,793,101	9,006,101	4,042,000	8,745,000
Alaska	4,097,996	772,996	2,175,000	1,150,000
Arizona	17,099,478	3,961,478	5,154,000	7,984,000
Arkansas	15,257,191	5,094,191	3,995,000	6,168,000
California	121,921,862	29,188,862	37,678,000	55,055,000
Colorado	15,948,425	4,466,425	4,845,000	6,637,000
Connecticut	16,106,700	4,174,700	4,871,000	7,061,000
Delaware	3,069,669	1,123,669	1,196,000	750,000
Dist. of C.	30,110,246	1,672,246	16,133,000	12,305,000
Florida	28,966,000	12,080,000	5,620,000	11,266,000
Georgia	25,382,017	11,145,017	6,039,000	8,198,000
Hawaii	5,647,626	1,681,626	1,257,000	2,709,000
Idaho	4,844,869	1,826,869	1,744,000	1,274,000
Illinois	47,103,697	16,938,697	13,331,000	16,834,000
Indiana	20,379,592	9,909,592	4,910,000	5,560,000
Iowa	14,058,073	5,074,073	4,249,000	4,735,000
Kansas	11,643,569	4,609,569	3,397,000	3,637,000
Kentucky	26,085,518	6,492,518	4,378,000	15,215,000
Louisiana	20,940,299	8,935,299	4,911,000	7,094,000
Maine	8,380,438	2,383,438	1,465,000	4,532,000
Maryland	19,482,063	6,422,063	4,493,000	8,567,000
Mass.	36,731,007	9,737,007	9,163,000	17,831,000
Michigan	41,826,134	15,131,134	12,438,000	14,257,000
Minnesota	25,533,314	7,901,314	6,951,000	10,681,000
Mississippi	17,785,562	5,700,562	4,013,000	8,072,000

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[1] Includes $473,000 in Contracts for the Nat'l Office, not available by State.

[2] EOA includes NYC-OS, CEP, WIN, Operation Mainstream, and PSC. Allocations for OIC and New Careers were not available.

[3] Includes $26,032,000 not available by state.

TABLE 90 Cont'd

States	Total Federal Expenditures/ Allocations for Programs	Total Federal Expenditures for Vocational Education	Federal Allocations for MDTA Programs	Federal Allocations for EOA Programs
Missouri	29,757,280	9,290,280	7,384,000	13,083,000
Montana	6,327,098	1,911,098	1,937,000	2,479,000
Nebraska	8,055,949	3,026,949	1,952,000	3,077,000
Nevada	4,645,451	928,451	1,273,000	2,444,000
New Hamp.	4,562,387	1,605,387	1,038,000	1,919,000
New Jersey	38,128,302	12,026,302	12,353,000	13,749,000
New Mexico	11,416,401	2,842,401	1,894,000	6,680,000
New York	101,171,848	30,051,848	35,573,000	35,547,000
N. Carolina	30,233,870	12,742,870	5,302,000	12,189,000
N. Dakota	4,292,348	1,813,348	1,243,000	1,236,000
Ohio	52,294,391	20,865,391	12,091,000	19,338,000
Oklahoma	16,973,819	5,788,819	3,886,000	7,299,000
Oregon	12,213,039	4,230,039	3,415,000	4,568,000
Penn.	53,239,164	19,459,164	15,398,000	18,382,000
Rhode Isl.	4,591,061	1,259,061	1,688,000	1,644,000
S. Carolina	18,489,102	7,188,102	3,606,000	7,695,000
S. Dakota	5,136,130	1,802,130	1,316,000	2,018,000
Tennessee	24,612,056	8,498,056	5,159,000	10,955,000
Texas	59,992,590	20,980,590	15,175,000	23,837,000
Utah	7,030,601	2,601,601	2,555,000	1,874,000
Vermont	3,751,394	1,296,394	1,248,000	1,207,000
Virginia	23,492,320	9,842,320	6,027,000	7,623,000
Washington	28,018,056	7,222,056	5,724,000	15,072,000
W. Virginia	16,670,373	4,176,373	5,094,000	7,400,000
Wisconsin	22,042,753	8,341,753	6,497,000	7,204,000
Wyoming	2,451,917	980,917	1,163,000	308,000
Guam	798,333	330,333	216,000	252,000
Puerto Rico	20,493,717	7,725,717	6,235,000	6,533,000
Virgin Isl.	1,451,736	149,736	99,000	1,203,000
Am. Samoa	411,460	118,460	172,000	121,000
Pac. Tr. Terr.	702,150	178,150	118,000	406,000

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
Manpower Report of the President, U.S. Department of Labor, Washington, D.C., March 1972.

TABLE 91

Total Expenditures for Vocational Education and Allocations for MDTA and EOA Programs as a Percent of Total Federal Expenditures/Allocations, 1970-71

States	Percent of Total Federal Expenditures for Vocational Education	Percent of Federal Allocations for MDTA	Percent of Federal Allocations for EOA
U.S. TOTAL 100%	31.8	27.1	41.2
Alabama	41.3	18.5	40.1
Alaska	18.9	53.1	28.1
Arizona	23.2	30.1	46.7
Arkansas	33.4	26.2	40.4
California	23.9	30.9	45.2
Colorado	28.0	30.4	41.6
Connecticut	25.9	30.2	43.8
Delaware	36.6	38.9	24.4
Dist. of C.	5.6	53.6	40.9
Florida	41.7	19.4	38.9
Georgia	43.9	23.8	32.3
Hawaii	29.8	22.3	48.0
Idaho	37.7	36.0	26.3
Illinois	36.0	28.3	35.7
Indiana	48.6	24.1	27.3
Iowa	36.1	30.2	33.7
Kansas	39.6	29.2	31.2
Kentucky	24.9	16.8	58.3
Louisiana	42.7	23.4	33.9
Maine	28.4	17.5	54.1
Maryland	33.0	24.8	47.1
Massachusetts	26.5	24.9	48.5
Michigan	36.2	29.7	34.1
Minnesota	30.9	27.2	41.8
Mississippi	32.1	22.6	45.4

TABLE 91 Cont'd

States	Percent of Total Federal Expenditures for Vocational Education	Percent of Federal Allocations for MDTA	Percent of Federal Allocations for EOA
Missouri	31.2	24.8	43.9
Montana	30.2	30.6	39.2
Nebraska	37.6	24.2	38.2
Nevada	20.0	27.4	52.6
New Hampshire	35.2	22.8	42.1
New Jersey	31.5	32.4	36.1
New Mexico	24.9	16.6	58.5
New York	29.7	35.2	35.1
N. Carolina	42.1	17.5	40.3
N. Dakota	42.2	29.0	28.8
Ohio	39.9	23.1	37.0
Oklahoma	54.1	23.0	43.0
Oregon	34.6	28.0	37.4
Pennsylvania	36.6	28.9	34.5
Rhode Island	27.4	36.8	36.8
S. Carolina	35.0	38.9	41.6
S. Dakota	35.1	25.6	39.3
Tennessee	34.5	21.0	44.5
Texas	34.1	25.3	39.7
Utah	37.0	36.5	26.7
Vermont	34.6	33.3	32.2
Virginia	41.9	25.7	32.4
Washington	25.8	20.4	53.8
W. Virginia	25.1	30.6	44.4
Wisconsin	37.6	29.5	32.7
Wyoming	40.0	47.4	12.6
Guam	41.4	27.1	31.6
Puerto Rico	37.7	30.4	31.9
Virgin Isl.	10.9	6.0	82.1
Am. Samoa	28.7	41.6	29.4
Pac. Tr. Terr.	25.4	16.8	57.8

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Educat
& Welfare, Washington, D.C., FY
Manpower Report of the President, U.S. Department of Labor, Washingt
D.C., March 1972.
Based on Table 90.

TABLE 92A

Average Federal Expenditure/Allocation per Student or Trainee in Vocational Education, MDTA, and EOA Programs, 1970-71

States	Average Federal Expenditure/Allocation per Student or Trainee in Vocational Education, MDTA, and EOA Programs	Federal Expenditure per Student in Vocational Education	Federal Allocation per Trainee in MDTA	Federal Allocation per Trainee in EOA
U.S. MEAN	$129	$43	$1,875	$2,173
Alabama	143	61	1,950	13,793
Alaska	277	58	3,583	2,060
Arizona	176	44	1,514	2,244
Arkansas	140	49	3,304	1,549
California	97	24	2,515	2,337
Colorado	153	46	1,568	1,479
Connecticut	133	36	1,744	2,107
Delaware	93	36	2,155	2,148
Dist. of C.	1,657	151	22,406[1]	3,032
Florida	64	27	1,974	1,927
Georgia	95	43	1,095	1,906
Hawaii	138	43	1,390	2,056
Idaho	148	60	1,906	1,234
Illinois	82	31	1,571	1,867
Indiana	142	75	1,187	1,809
Iowa	104	39	1,479	2,490
Kansas	118	49	1,163	2,042
Kentucky	167	44	1,381	3,373
Louisiana	115	51	1,878	2,259
Maine	303	101	1,447	2,082
Maryland	130	45	1,690	1,599
Massachusetts	262	79	1,527	2,378
Michigan	122	47	1,866	2,135
Minnesota	112	36	2,237	3,008
Mississippi	164	56	1,425	2,603

[1] The high cost per trainee in the District of Columbia is due in part to national contracts funded in D.C. but performed elsewhere.

TABLE 92A Cont'd

States	Average Federal Expenditure/Allocation per Student or Trainee in Vocational Education, MDTA, and EOA Programs	Federal Expenditure per Student in Vocational Education	Federal Allocation per Trainee in MDTA	Federal Allocation per Trainee in EOA
Missouri	197	64	1,842	2,698
Montana	206	69	1,938	1,788
Nebraska	117	46	1,372	2,794
Nevada	231	51	1,548	2,703
New Hampshire	184	69	1,398	3,247
New Jersey	123	41	1,620	1,763
New Mexico	212	57	1,795	2,289
New York	142	44	2,763	1,786
N. Carolina	77	33	1,220	2,740
N. Dakota	148	69	2,106	1,958
Ohio	127	53	1,678	2,034
Oklahoma	150	55	1,132	2,148
Oregon	112	41	2,030	1,053
Pennsylvania	144	57	1,732	1,146
Rhode Island	206	68	1,584	1,001
S. Carolina	184	76	1,402	3,355
S. Dakota	220	84	2,605	1,887
Tennessee	157	59	1,428	2,532
Texas	99	36	1,366	1,895
Utah	70	27	1,739	927
Vermont	249	102	1,959	1,246
Virginia	94	40	1,746	1,494
Washington	82	31	1,568	2,596
W. Virginia	250	70	2,755	1,575
Wisconsin	111	44	1,814	1,710
Wyoming	160	68	2,368	930
Guam	255	117	NA	NA
Puerto Rico	NA	70	NA	NA
Virgin Isl.	NA	84	NA	NA
Am. Samoa	NA	69	NA	NA
Pac. Tr. Terr.	NA	61	NA	NA

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, Welfare, Washington, D.C., FY 1971.

Manpower Report of the President, U.S. Department of Labor, Washington, D.C., March 1972.

TABLE 92B

Rank Order of States by Average Federal Expenditure/Allocation per Student or Trainee in Federally Reported Vocational Education, MDTA and EOA Programs, 1970-71

U.S. MEAN = $129

State	Expenditure	State	Expenditure
Dist. of Columbia	$1,657	Arkansas	$140
Maine	303	Hawaii	138
Alaska	277	Connecticut	133
Massachusetts	262	Maryland	130
Guam	255	Ohio	127
Vermont	249	New Jersey	123
West Virginia	250	Michigan	122
Nevada	231	Kansas	118
South Dakota	220	Nebraska	117
New Mexico	212	Louisiana	115
Montana	206	Minnesota	112
Rhode Island	206	Oregon	112
Missouri	197	Wisconsin	111
New Hampshire	184	Iowa	104
South Carolina	184	Texas	99
Arizona	176	California	97
Kentucky	167	Georgia	95
Mississippi	164	Virginia	94
Wyoming	160	Delaware	93
Tennessee	157	Illinois	82
Colorado	153	Washington	82
Oklahoma	150	North Carolina	77
Idaho	148	Utah	70
North Dakota	148	Florida	64
Pennsylvania	144	Puerto Rico	NA
Alabama	143	Virgin Isl.	NA
Indiana	142	American Samoa	NA
New York	142	Pacific Tr. Territories	NA

Delaware, Virginia, Georgia, California, and Texas, in their order up from lowest Federal cost per student or trainee.

The District of Columbia is in a class entirely by itself, with a total Federal cost per student or trainee of $1,657. This is due primarily to its MDTA costs, which include some national contracts funded in the District of Columbia but actually performed in a number of States. The District of Columbia also has the highest cost per student in vocational education, $151 compared with the State high of $102 in Vermont, $101 in Maine, and all the way down to $27 in Florida and Utah and $24 in California.

Regardless of reasons, the vastly greater Federal cost per trainee in manpower programs compared with vocational education is a fact of major significance. More research is needed to fill in details of this situation, such as relative length and extent of training, relative placement and job retention rates, and relative cost-benefit ratios. Even without this information, a difference of such magnitude must inevitably be taken into consideration when Federal funds are as limited as they have been for the past several years.

Vocational Education

Federal expenditures for manpower programs, as noted previously, constitute virtually the total cost of such training. In vocational education the cost is shared with State and local governments, and the relative amount by each will be examined in the following series of tables and analyses. Additional analyses are included to show the relative position of each State in the emphasis it places on expenditures for secondary, post-secondary, adult, handicapped, and disadvantaged programs.

Ratio of State and local to Federal expenditures. Table 93 shows dollar amounts reported as spent by State and local agencies for Fiscal 1971, Federal expenditures for the same year, and the ratio of the first to the second. It must be recognized immediately that the figures for combined State and local expenditures are grossly inaccurate. State expenditures as reported are probably accurate; local figures may be accurate, but enough of them are so incomplete that totals have little meaning. This becomes obvious when the totals are used to compute cost per student, as will be seen in later tables.

These cost data are nevertheless included in the present Report for two reasons. First, no better data are available. These are the official expenditures reported by each State to the Federal Government on USOE form 3131 listed as "Expenditures for Vocational Education by Source, Purpose, and Level," column C, "Total State/Local (Total Dollars)". The second reason for presenting these data regardless of their deficiency is to document the need for better reporting procedures by showing how useful this information could be. It will be necessary on the following pages to point out repeatedly that conclusions about differences among the States and programs cannot be drawn from these tables. Wherever State and local expenditure figures are used, the resulting percentages and ranking of States are illustrative only.

TABLE 93

Ratio of State and Local Vocational Expenditures to Federal Expenditures for Vocational Education, 1970-71

States	State and Local Expenditures for Vocational Education	Federal Expenditures for Vocational Education	Ratio of State and Local Vocational Expenditures to Federal Expenditures for Vocational Education
U.S. TOTAL	$2,007,675,423	$394,703,542	$5.09:1
Alabama	27,083,869	9,006,101	3.01:1
Alaska	3,320,644	772,996	4.30:1
Arizona	10,333,296	3,961,478	2.61:1
Arkansas	8,785,604	5,094,191	1.72:1
California	211,581,957	29,188,862	7.25:1
Colorado	19,391,280	4,466,425	4.34:1
Connecticut	28,162,905	4,174,700	6.75:1
Delaware	6,166,237	1,123,669	5.49:1
Dist. of C.	2,195,250	1,672,246	1.31:1
Florida	63,310,000	12,080,000	5.24:1
Georgia	35,110,501	11,145,017	3.15:1
Hawaii	5,536,052	1,681,626	3.29:1
Idaho	4,426,569	1,826,869	2.42:1
Illinois	166,048,381	16,938,697	9.80:1
Indiana	18,280,740	9,909,592	1.84:1
Iowa	26,642,624	5,074,073	5.25:1
Kansas	11,744,355	4,609,569	2.55:1
Kentucky	21,807,069	6,492,518	3.36:1
Louisiana	14,273,303	8,935,299	1.60:1
Maine	7,780,920	2,383,438	3.26:1
Maryland	50,085,790	6,422,063	7.80:1
Massachusetts	112,347,876	9,737,007	11.54:1
Michigan	37,064,066	15,131,134	2.45:1
Minnesota	40,383,975	7,901,314	5.11:1
Mississippi	15,134,375	5,700,562	2.65:1

TABLE 93 Cont'd

States	State and Local Expenditures for Vocational Education	Federal Expenditures for Vocational Education	Ratio of State and Local Vocational Expenditures to Federal Expenditures for Vocational Education
Missouri	27,130,725	9,290,280	2.92:1
Montana	4,907,446	1,911,098	2.57:1
Nebraska	8,097,680	3,026,949	2.68:1
Nevada	2,807,162	928,451	3.02:1
New Hampshire	4,200,669	1,605,387	2.62:1
New Jersey	27,226,040	12,026,302	2.26:1
New Mexico	6,113,983	2,842,401	2.15:1
New York	266,218,606	30,051,848	8.86:1
N. Carolina	69,779,483	12,742,870	5.48:1
N. Dakota	3,884,195	1,813,348	2.14:1
Ohio	163,691,703	20,865,391	7.85:1
Oklahoma	21,780,038	5,788,819	3.76:1
Oregon	18,698,964	4,230,039	4.42:1
Pennsylvania	132,594,287	19,459,164	6.81:1
Rhode Isl.	5,140,315	1,259,061	4.08:1
S. Carolina	13,953,234	7,188,102	1.94:1
S. Dakota	2,852,154	1,802,130	1.58:1
Tennessee	23,429,245	8,498,056	2.76:1
Texas	85,464,881	20,980,590	4.07:1
Utah	13,908,121	2,601,601	5.35:1
Vermont	9,670,368	1,296,394	7.46:1
Virginia	29,609,622	9,842,320	3.01:1
Washington	36,435,562	7,222,056	5.05:1
W. Virginia	7,173,499	4,176,373	1.72:1
Wisconsin	55,280,895	8,341,753	6.63:1
Wyoming	3,774,202	980,917	3.85:1
Guam	409,720	330,333	1.24:1
Puerto Rico	14,277,438	7,725,717	1.85:1
Virgin Isl.	738,409	149,736	4.93:1
Am. Samoa	96,639	118,460	0.82:1
Pac. Tr. Terr.	1,332,500	178,150	7.48:1

Source: U.S. Office of Education Form 3129, U.S. Department of Health, Education, Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3131, U.S. Department of Health, Education, Welfare, Washington, D.C., FY 1971.

Total Federal expenditures for vocational education in 1970-71 were nearly $395 million. State and local expenditures as reported were $2 billion, for a ratio of more than five to one. The ratio varied from more than eleven and one-half to one in Massachusets, nearly ten to one in Illinois, and nearly nine to one in New York down to less than two to one in Arkansas, the District of Columbia, Indiana, Louisiana, South Carolina, South Dakota, and West Virginia. Undoubtedly economic and public policy factors are responsible for some differences between States, and it would be helpful to administration at every level and to legislative bodies to know what these factors are. But they cannot be examined in detail until the actual differences in State and local expenditures are known.

Secondary, post-secondary, and adult expenditures. Table 94 shows how the State distributed their Federal dollars in 1970-71 of vocational education programs at the secondary, post-secondary, and adult levels. Table 95A shows the percent of Federal funds used for each level. (Due to rounding, percentages may not add up to 100 for a State).

The Vocational Education Act of 1963 was the first Federal legislation to make specific provision for expenditures at the post-secondary level and for persons with special needs, such as the disadvantaged and handicapped. However, these terms were not defined and no specific amounts were required. In 1968, Congress required specific percents to be spent for post-secondary, disadvantaged and handicapped. All other funds were to be spent at the discretion of the States.

The percent of Federal vocational education funds used for the secondary level in 1970-71 ranged from a low of 25.9 percent in Minnesota to a high of 90.3 percent in Vermont, with a national mean of 63.0 percent. The range for post-secondary expenditures was from a low of 7.1 percent in Alabama to a high of 67.8 percent in Minnesota; the mean was 27.9 percent. The range for the adult level was from zero in North Carolina and Vermont to 26.0 percent in Wisconsin, with 8.3 percent nationally.

Variations among the States in distribution of their Federal funds may be accounted for upon consideration of the following: Nature of the total education system of the State; occupational distribution in the State; general feeling of support for vocational education -- business, industry, community groups, parents; vocational education priorities developed in the State; and method of distribution of funds to local districts.

Handicapped and disadvantaged. Expenditures for the handicapped and disadvantaged are required under the Amendments of 1968 to be at least ten percent and fifteen percent respectively of total Federal allocations. In the following tables, total vocational education expenditures for the handicapped and disadvantaged, State and local as well as Federal, are examined nationally and by State.

Table 96 shows the percent of total vocational education expenditures that are reported for the handicapped. Since this includes State and local funds, the amounts may or may not be correct. If it could be assumed that each State's financial reporting was consistent in total vocational education expenditures and portions of the total, i.e. expenditures for the handicapped, then the relative emphasis by each State on one program or

TABLE 94

Total Federal Expenditures for Secondary, Post-Secondary, and Adult Vocational Education, 1970-71

States	Total Federal Vocational Education Expenditures	Federal Expenditures For Secondary Vocational Education (Rounded)	Federal Expenditures For Post-Secondary Vocational Education (Rounded)	Federal Expenditures For Adult Vocational Education (Rounded)
U.S. TOTAL	$394,703,542	$248,542,510	$109,972,204	$32,866,835
Alabama	9,006,101	7,788,877	634,777	582,477
Alaska	772,996	528,000	179,000	66,000
Arizona	3,961,478	2,357,000	1,029,000	577,000
Arkansas	5,094,191	2,662,000	2,242,000	190,000
California	29,188,862	17,309,000	9,036,000	2,844,000
Colorado	4,466,425	2,352,000	1,961,000	153,000
Connecticut	4,174,700	2,717,000	536,000	238,000
Delaware	1,123,669	980,560	101,002	42,107
Dist. of C.	1,672,246	1,303,000	230,000	139,000
Florida	12,080,000	8,080,000	3,679,000	321,000
Georgia	11,145,017	4,680,082	5,993,520	471,415
Hawaii	1,681,626	633,000	1,021,000	28,000
Idaho	1,826,869	773,000	1,018,000	36,000
Illinois	16,938,697	12,250,000	3,161,000	1,529,000
Indiana	9,909,592	8,273,785	1,231,480	404,327
Iowa	5,074,073	1,569,000	3,007,000	498,000
Kansas	4,609,569	2,751,000	1,551,000	308,000
Kentuchy	6,492,518	4,225,000	1,649,000	619,000
Louisiana	8,935,299	4,654,000	3,665,000	616,000
Maine	2,383,438	1,732,000	618,000	32,000
Maryland	6,422,063	4,479,000	1,631,000	312,000
Massachusetts	9,737,007	8,280,000	1,312,000	146,000
Michigan	15,131,134	11,160,000	3,291,000	681,000
Minnesota	7,901,314	2,046,000	5,355,000	489,000
Mississippi	5,700,562	2,972,000	2,375,000	354,000

TABLE 94 Cont'd

States	Total Federal Vocational Education Expenditures	Federal Expenditures For Secondary Vocational Education (Rounded)	Federal Expenditures For Post-Secondary Vocational Education (Rounded)	Federal Expenditures For Adult Vocational Education (Rounded)
Missouri	9,290,280	7,129,000	1,815,000	344,000
Montana	1,911,098	1,143,000	724,000	44,000
Nebraska	3,026,949	1,873,000	1,034,000	120,000
Nevada	928,451	675,000	157,000	70,000
New Hampshire	1,605,387	1,148,201	261,122	196,064
New Jersey	12,026,302	10,014,000	1,788,000	224,000
New Mexico	2,842,401	1,764,000	942,000	136,000
New York	30,051,848	18,633,000	4,114,000	4,732,000
North Carolina	12,742,870	8,603,000	4,140,000	0
North Dakota	1,813,348	1,080,000	642,000	91,000
Ohio	20,865,391	13,658,000	3,009,000	4,199,000
Oklahoma	5,788,819	3,603,000	1,703,000	482,000
Oregon	4,230,039	2,078,000	1,803,000	349,000
Pennsylvania	19,459,164	13,137,000	5,086,000	1,236,000
Rhode Isalnd	1,259,061	907,000	172,000	181,000
South Carolina	7,188,102	5,957,000	1,054,000	177,000
South Dakota	1,802,130	1,093,000	644,000	65,000
Tennessee	8,498,056	4,070,000	4,003,000	435,000
Texas	20,980,590	10,101,386	7,273,308	3,605,896
Utah	2,601,601	1,703,000	713,000	185,000
Vermont	1,296,394	1,171,000	126,000	0
Virginia	9,842,320	6,994,000	2,542,000	306,000
Washington	7,222,056	2,955,000	3,791,000	476,000
West Virginia	4,176,373	2,706,000	929,000	514,000
Wisconsin	8,341,753	3,570,000	2,601,000	2,170,000
Wyoming	980,917	606,269	338,085	36,563
Guam	330,333	263,249	40,008	27,076
Puerto Rico	7,725,717	5,003,614	1,946,193	775,910
Virgin Islands	149,736	128,627	16,109	5,000
Pac. Tr. Terr.	178,150	143,000	27,000	8,000
American Samoa	118,460	86,860	31,600	0

Source: U.S. Office of Education Form 3131, U.S. Department of Health Education, & Welfare, Washington, D. C., FY 1971.

TABLE 95A

Total Federal Expenditures for Secondary, Post-Secondary, and Adult Vocational Education as a Percent of Federal Expenditures for All Vocational Programs, 1970-71

States	Total Federal Vocational Education Expenditures	Secondary Vocational Expenditures as a Percent of Total Federal Expenditures	Post-Secondary Vocational Education Expenditures as a Percent of Total Federal Expenditures	Adult Vocational Education Expenditures as a Percent of Total Federal Expenditures
U.S. TOTAL	$394,703,542	63.0	27.9	8.3
Alabama	9,006,101	86.5	7.1	6.5
Alaska	772,996	68.3	23.2	8.5
Arizona	3,961,478	59.5	26.0	14.6
Arkansas	5,094,191	52.3	44.0	3.7
California	29,188,862	59.3	31.0	9.7
Colorado	4,466,425	52.7	43.9	3.4
Connecticut	4,174,700	65.1	12.8	5.7
Delaware	1,123,669	87.3	9.0	3.7
Dist. of C.	1,672,246	77.9	13.8	8.3
Florida	12,080,000	66.9	30.5	2.7
Georgia	11,145,017	42.0	53.8	4.2
Hawaii	1,681,626	37.6	60.7	1.7
Idaho	1,826,869	42.3	55.7	2.0
Illinois	16,938,697	72.3	18.7	9.0
Indiana	9,909,592	83.5	12.4	4.1
Iowa	5,074,073	30.9	59.3	9.8
Kansas	4,609,569	59.7	33.6	6.7
Kentucky	6,492,518	65.1	25.4	9.5
Louisiana	8,935,299	52.1	41.0	6.9
Maine	2,383,438	72.7	25.9	1.4
Maryland	6,422,063	69.7	25.4	4.9
Massachusetts	9,737,007	85.0	13.5	1.5
Michigan	15,131,134	73.8	21.7	4.5
Minnesota	7,901,314	25.9	67.8	6.3
Mississippi	5,700,562	52.1	41.7	6.2

TABLE 95A Cont'd

States	Total Federal Vocational Education Expenditures	Secondary Vocational Expenditures as a Percent of Total Federal Expenditures	Post-Secondary Vocational Education Expenditures as a Percent of Total Federal Expenditures	Adult Vocational Education Expenditures as a Percent of Total Federal Expenditures
Missouri	9,290,280	76.7	19.5	3.7
Montana	1,911,098	59.8	37.9	2.3
Nebraska	3,026,949	61.9	34.2	4.0
Nevada	928,451	72.7	16.9	7.5
New Hampshire	1,605,387	71.5	16.3	12.2
New Jersey	12,026,302	83.3	14.9	1.9
New Mexico	2,842,401	62.1	33.1	4.8
New York[1]	30,051,848	62.0	13.7	15.7
N. Carolina	12,742,870	67.5	32.5	0.0
N. Dakota	1,813,348	59.6	35.4	5.0
Ohio	20,865,391	65.6	14.4	20.1
Oklahoma	5,788,819	62.2	29.4	8.3
Oregon	4,230,039	49.1	42.6	8.3
Pennsylvania	19,459,164	(67.5)	26.1	6.4
Rhode Island	1,259,061	72.0	13.7	14.4
S. Carolina	7,188,102	82.9	14.7	2.5
S. Dakota	1,802,130	60.7	35.7	3.6
Tennessee	8,498,056	47.8	47.1	5.1
Texas	20,980,590	48.1	34.7	17.2
Utah	2,601,601	65.5	27.4	7.1
Vermont	1,296,394	90.3	9.7	0.0
Virginia	9,842,320	71.1	25.8	3.1
Washington	7,222,056	40.9	52.5	6.6
W. Virginia	4,176,373	64.8	22.2	12.3
Wisconsin	8,341,753	42.8	31.2	26.0
Wyoming	980,917	61.8	34.5	3.7
Guam	330,333	79.7	12.1	8.2
Puerto Rico	7,725,717	64.8	24.2	10.0
Virgin Isl.	149,736	86.0	10.8	3.3
Pac. Tr. Terr.	178,150	80.3	15.2	4.5
American Samoa	118,460	73.3	26.7	0.0

[1] According to Mrs. Florence Sutler, New York Department of Education, a sizeable portion of New York's expenditures were used for multi-level programs and cannot be directly attributed to secondary, post-secondary or adult. When this multi-level portion is subtracted percentages are: secondary 67.8 percent, post-secondary 15.0 percent, and adult 17.2 percent.

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 95B

Rank Order of States by Federal Expenditures for Secondary Vocational Education as a Percent of Federal Expenditures, for All Vocational Education, 1970-71

U.S. MEAN = 63.0

State	Percent	State	Percent
Vermont	90.3	Kentucky	65.1
Delaware	87.3	Puerto Rico	64.8
Alabama	86.5	West Virginia	64.8
Virgin Islands	86.0	Oklahoma	62.2
Massachusetts	85.0	New Mexico	62.1
Indiana	83.5	New York	62.0
New Jersey	83.3	Nebraska	61.9
South Carolina	82.9	Wyoming	61.8
Pacific Tr. Territories	80.3	South Dakota	60.7
Guam	79.7	Montana	59.8
Dist. of Columbia	77.9	Kansas	59.7
Missouri	76.7	North Dakota	59.6
Michigan	73.8	Arizona	59.5
American Samoa	73.3	California	59.3
Maine	72.7	Colorado	52.7
Nevada	72.7	Arkansas	52.3
Illinois	72.3	Louisiana	52.1
Rhode Island	72.0	Mississippi	52.1
New Hampshire	71.5	Oregon	49.1
Virginia	71.1	Texas	48.1
Maryland	69.7	Tennessee	47.8
Alaska	68.3	Wisconsin	42.8
Pennsylvania	67.5	Idaho	42.3
North Carolina	67.5	Georgia	42.0
Florida	66.9	Washington	40.9
Ohio	65.5	Hawaii	37.6
Utah	65.5	Iowa	30.9
Connecticut	65.1	Minnesota	25.9

TABLE 95C

Rank Order of States by Federal Expenditures for Post-Secondary Vocational Education as a Percent of Federal Expenditures for All Vocational Education, 1970-71

U.S. MEAN = 27.9

State	Percent	State	Percent
Minnesota	67.8	Arizona	26.0
Hawaii	60.7	Maine	25.9
Iowa	59.3	Virginia	25.8
Idaho	55.7	Kentucky	25.4
Georgia	53.8	Maryland	25.4
Washington	52.5	Puerto Rico	25.2
Tennessee	47.1	Alaska	23.2
Arkansas	44.0	West Virginia	22.2
Colorado	43.9	Michigan	21.7
Oregon	42.6	Missouri	19.5
Mississippi	41.7	Illinois	18.7
Louisiana	41.0	Nevada	16.9
Montana	37.9	New Hampshire	16.3
South Dakota	35.7	Pacific Trust Territories	15.2
North Dakota	35.4	New Jersey	14.9
Texas	34.7	South Carolina	14.7
Wyoming	34.5	Ohio	14.4
Nebraska	34.2	Dist. of Columbia	13.8
Kansas	33.6	New York	13.7
New Mexico	33.1	Rhode Island	13.7
North Carolin	32.5	Massachusetts	13.5
Wisconsin	31.2	Connecticut	12.8
California	31.0	Indiana	12.4
Florida	30.5	Guam	12.1
Oklahoma	29.4	Virgin Islands	10.8
Utah	27.4	Vermont	9.7
American Samoa	26.7	Delaware	9.0
Pennsylvania	26.1	Alabama	7.1

TABLE 95D

Rank Order of States by Federal Expenditures for Adult Education as a Percent of Federal Expenditures for All Vocational Education, 1970-71

U.S. MEAN = 8.3

State	Percent	State	Percent
Wisconsin	26.0	Tennessee	5.1
Ohio	20.1	North Dakota	5.0
Texas	17.2	Maryland	4.9
New York	15.7	New Mexico	4.8
Arizona	14.6	Michigan	4.5
Rhode Island	14.4	Pacific Trust Territories	4.5
West Virginia	12.3	Georgia	4.2
New Hampshire	12.2	Indiana	4.1
Puerto Rico	10.0	Nebraska	4.0
Iowa	9.8	Arkansas	3.7
California	9.7	Delaware	3.7
Kentucky	9.5	Missouri	3.7
Illinois	9.0	Wyoming	3.7
Alaska	8.5	South Dakota	3.6
Dist. of Columbia	8.3	Colorado	3.4
Oklahoma	8.3	Virgin Islands	3.3
Oregon	8.3	Virginia	3.1
Guam	8.2	Florida	2.7
Nevada	7.5	South Carolina	2.5
Utah	7.1	Montana	2.3
Louisiana	6.9	Idaho	2.0
Kansas	6.7	New Jersey	1.9
Washington	6.6	Hawaii	1.7
Alabama	6.5	Massachusetts	1.5
Pennsylvania	6.4	Maine	1.4
Minnesota	6.3	North Carolina	0.0
Mississippi	6.2	Vermont	0.0
Connecticut	5.7	American Samoa	0.0

TABLE 96

Federal and State/Local Expenditures for Handicapped Vocational Education Students as a Percent of Total Vocational Education Expenditures, 1970-71

States	Federal and State/Local Vocational Education Expenditures	Total Vocational Education Expenditures for Handicapped Students	Percent of Total Vocational Education Expenditures
U.S. TOTAL	$2,402,378,965	$62,512,431	2.6
Alabama	36,089,970	1,444,414	4.0
Alaska	4,093,640	102,232	2.5
Arizona	14,294,774	407,646	2.9
Arkansas	13,879,795	766,438	5.5
California	240,770,819	4,181,287	1.7
Colorado	23,857,705	1,337,578	5.6
Connecticut	32,337,605	1,407,305	4.4
Delaware	7,289,906	196,922	2.7
Dist. of C.	3,867,496	112,889	2.9
Florida	75,390,000	2,093,965	2.8
Georgia	46,255,518	1,190,194	2.6
Hawaii	7,217,678	198,127	2.7
Idaho	6,253,438	107,433	1.7
Illinois	182,987,078	4,078,434	2.2
Indiana	28,190,332	2,846,556	10.1
Iowa	31,716,697	1,048,178	3.3
Kansas	16,353,924	820,161	5.0
Kentucky	28,299,587	696,088	2.5
Louisiana	23,208,602	976,490	4.2
Maine	10,164,358	217,420	2.1
Maryland	56,507,853	1,823,297	3.2
Massachusetts	122,084,883	2,067,996	1.7
Michigan	52,195,200	1,269,381	2.4
Minnesota	48,285,289	622,966	1.3
Mississippi	20,834,937	503,148	2.4

TABLE 96 Cont'd

States	Federal and State/Local Vocational Education Expenditures	Total Vocational Education Expenditures for Handicapped Students	Percent of Total Vocational Education Expenditures
Missouri	36,421,005	1,180,343	3.2
Montana	6,818,544	155,522	2.3
Nebraska	11,124,629	298,072	2.7
Nevada	3,735,613	260,028	7.0
New Hampshire	5,806,056	375,802	6.5
New Jersey	39,252,342	1,633,969	4.2
New Mexico	8,956,384	616,987	6.9
New York	296,270,454	9,662,632	3.3
N. Carolina	82,522,353	1,357,382	1.6
N. Dakota	5,697,543	206,474	3.6
Ohio	184,557,094	2,433,067	1.3
Oklahoma	27,568,857	601,214	2.2
Oregon	22,929,003	1,086,906	4.7
Pennsylvania	152,053,451	3,228,985	2.1
Rhode Island	6,399,376	172,830	2.7
S. Carolina	21,141,336	NA	NA
S. Dakota	4,654,284	196,463	4.2
Tennessee	31,927,301	742,731	2.3
Texas	106,445,471	2,572,924	2.4
Utah	16,509,722	545,192	3.3
Vermont	10,966,762	71,261	.6
Virginia	39,451,942	848,715	2.2
Washington	43,657,618	1,655,699	3.8
W. Virginia	11,349,872	306,094	2.7
Wisconsin	63,622,648	998,716	1.6
Wyoming	4,755,119	204,809	4.3
Guam	740,053	26,672	3.6
Puerto Rico	22,003,155	495,580	2.3
Virgin Isl.	888,145	39,902	4.5
Am. Samoa	215,099	14,079	6.5
Pac. Tr. Terr.	1,510,650	6,816	.5

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.

TABLE 97

Federal and State/Local Expenditures for Disadvantaged Vocational Education Students as a Percent of Total Vocational Education Expenditures, 1970-71.

States	Federal and State/Local Vocational Education Expenditures	Total Vocational Education Expenditures for Disadvantaged Students	Percent of Total Vocational Education Expenditures
U.S. TOTAL	$2,402,378,965	$230,403,946	9.6
Alabama	36,089,970	3,067,604	8.5
Alaska	4,093,640	2,231,538	54.5
Arizona	14,294,774	1,511,803	10.6
Arkansas	13,879,795	3,488,537	25.1
California	240,770,819	23,018,308	9.6
Colorado	23,857,705	1,893,165	7.9
Connecticut	32,337,605	3,778,338	11.7
Delaware	7,289,906	270,012	3.7
Dist. of C.	3,867,496	507,445	13.1
Florida	75,390,000	9,782,010	13.0
Georgia	46,255,518	5,045,890	10.9
Hawaii	7,217,678	609,931	8.5
Idaho	6,253,438	305,700	4.9
Illinois	182,987,078	20,360,635	11.1
Indiana	28,190,332	2,692,356	9.6
Iowa	31,716,697	1,315,342	4.1
Kansas	16,353,924	1,639,411	10.0
Kentucky	28,299,587	1,865,541	6.6
Louisiana	23,208,602	5,056,185	21.8
Maine	10,164,358	406,576	4.0
Maryland	56,507,853	3,942,463	7.0
Mass.	122,084,883	2,711,793	2.2
Michigan	52,195,200	3,889,606	7.5
Minnesota	48,285,289	2,456,524	5.1
Mississippi	20,834,937	2,182,673	10.5

TABLE 97 Cont'd

States	Federal and State/Local Vocational Education Expenditures	Total Vocational Education Expenditures for Disadvantaged Students	Percent of Total Vocational Education Expenditures
Missouri	36,421,005	1,792,505	4.9
Montana	6,818,544	407,171	6.0
Nebraska	11,124,629	798,820	7.2
Nevada	3,735,613	607,561	16.3
New Hamp.	5,806,056	469,376	8.1
New Jersey	39,252,342	4,246,510	10.8
New Mexico	8,956,384	2,991,843	33.4
New York	296,270,454	47,632,565	16.1
N. Carolina	82,522,353	3,629,837	4.4
N. Dakota	5,697,543	679,075	11.9
Ohio	184,557,094	7,668,356	4.2
Oklahoma	27,568,857	6,282,579	22.8
Oregon	22,929,003	1,553,176	6.8
Penn.	152,053,451	11,292,124	7.4
Rhode Isl.	6,399,376	968,430	15.1
S. Carolina	21,141,336	NA	NA
S. Dakota	4,654,284	1,079,321	23.2
Tennessee	31,927,301	3,302,279	10.3
Texas	106,445,471	7,703,343	7.2
Utah	16,509,722	956,738	5.8
Vermont	10,966,762	898,125	8.2
Virginia	39,451,942	7,943,559	20.1
Washington	43,657,618	3,439,128	7.9
W. Virginia	11,349,872	1,345,189	11.9
Wisconsin	63,622,648	2,741,052	4.3
Wyoming	4,755,119	202,666	4.3
Guam	740,053	77,651	10.5
Puerto Rico	22,003,155	5,177,243	23.5
Virgin Isl.	888,145	192,332	21.7
Am. Samoa	215,099	185,605	86.3
Pac. Tr. Terr.	1,510,650	110,401	7.3

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

another would be shown in this and subsequent tables. There is no way of knowing now if that assumption is correct, so the following observations cannot be considered as factual, but are illustrative only.

Nationally the percent of total vocational education expenditures for handicapped students in 1970-71 was reported to be 2.6 percent. It varied in States from 0.6 percent in Vermont to 10.1 percent in Indiana. Indiana would be in a class by itself in using vocational education funds for the handicapped if these figures were correct; no other States came closer than Nevada with 7.0 percent and New Mexico with 6.9 percent.

The comparative total vocational education expenditures as reported nationally give a mean of approximately $300.00 spent on the handicapped per 1,000 population. Wyoming, New Mexico, and Colorado each spent more than $600, while Michigan spent a little more than $140 and the District of Columbia only $66.56.

Tables 97 contains the same information in reported total vocational education expenditures for the disadvantaged as Table 96 does for the handicapped. Here the national percentage is nearly ten percent. States varied from more than one-half in Alaska (54.5 percent), to less than five percent in ten States: Idaho (4.9 percent); Missouri (4.9 percent); North Carolina (4.4 percent); Wisconsin (4.3 percent); Wyoming (4.3 percent); Ohio (4.2 percent); Iowa (4.1 percent); Maine (4.0 percent); Delaware (3.7 percent); and Massachusetts (2.2 percent).

Vocational education expenditures as reported for the disadvantaged per 1,000 population totaled approximately $1,100 nationally. Alaska was far out in front with $7,429.00, followed by New Mexico with $2,944.72, New York with $2,611.25, Oklahoma with $2,454.87, and Vermont with $2,021.30. Two States and the District of Columbia reported that they spent less than $400 per 1,000 population: Missouri, $383.30; Nebraska, $371.20, and District of Columbia, $322.25.

Cost per student. One of the most valuable indices of comparative effort in vocational education and manpower training would be total cost per student or trainee. These have been noted for MDTA and EOA programs, where almost the entire cost is covered by Federal sources. In vocational education it is impossible at this time to compute valid cost per student figures because of the uncertainty of reported local costs. This is easily recognized when the national figure for Federal, State and local expenditures combined appeares to be only $262. This includes only that part of the cost per student in vocational education which represents vocational classes, probably about one-third to one-half of the total. Some local school costs for vocational education obviously are not being reported. In the following series of tables, therefore, none of the results and none of the comparisons represent actual costs per student in vocational education, but reported costs only.

It is interesting to note that variations among the States in total vocational education cost per student as reported (Tables 98A and

TABLE 98A

Federal and State/Local Expenditures per Student in Vocational Education, 1970-71

States	Federal and State/Local Expenditures in Vocational Education	Enrollment in Vocational Education	Federal and State/Local Expenditures per Student in Vocational Education (Rounded)
U.S. TOTAL	$2,402,378,965[1,2]	9,148,506	$262.00
Alabama	36,089,970	147,220	245.00
Alaska	4,093,640	13,147	311.00
Arizona	14,294,774	88,471	162.00
Arkansas	13,879,795	103,907	134.00
California	240,770,819	1,204,611	200.00
Colorado	23,857,705	95,309	250.00
Connecticut	32,337,605	113,694	284.00
Delaware	7,289,906	31,211	234.00
Dist. of C.	3,867,496	11,008	351.00
Florida	75,390,000	438,087	172.00
Georgia	46,255,518	255,887	181.00
Hawaii	7,217,678	38,692	186.00
Idaho	6,253,438	30,370	206.00
Illinois	182,987,078	541,178	338.00
Indiana	28,190,332	131,338	215.00
Iowa	31,716,697	127,911	248.00
Kansas	16,353,924	93,151	172.00
Kentucky	28,299,587	145,324	195.00
Louisiana	23,208,602	174,373	133.00
Maine	10,164,358	23,424	434.00
Maryland	56,507,853	141,774	398.00
Massachusetts	122,084,883	121,950	1,001.00
Michigan	52,195,200	320,055	163.00
Minnesota	48,285,289	219,085	220.00
Mississippi	20,834,937	101,768	205.00

[1] This total will not equal the sum of the totals of the three grade levels because the figures are rounded by States and because in some States expenditures for research, guidance, construction, etc. were not broken out by grade level.

[2] Only that part of the cost for students in vocational education is included which represents vocational classes, about one-third to one-half the total.

TABLE 98A Cont'd

States	Federal and State/Local Expenditures in Vocational Education	Enrollment in Vocational Education	Federal and State/Local Expenditures per Student in Vocational Education (Rounded)
Missouri	36,421,005	143,632	254.00
Montana	6,818.544	27,328	250.00
Nebraska	11,124,629	65,318	170.00
Nevada	3,735,613	18,110	206.00
New Hampshire	5,806,056	23,082	252.00
New Jersey	39,252,342	292,516	134.00
New Mexico	8,956,384	49,178	182.00
New York	296,270,454	669,717	442.00
North Carolina	82,522,353	376,817	219.00
North Dakota	5,697,543	26,215	217.00
Ohio	184,557,094	389,044	474.00
Oklahoma	27,568,857	104,223	265.00
Oregon	22,929,003	101,090	227.00
Pennsylvania	152,053,451	337,835	450.00
Rhode Island	6,399,376	18,370	348.00
South Carolina	21,141,336	93,616	226.00
South Dakota	4,654,284	21,413	217.00
Tennessee	31,927,301	143,572	222.00
Texas	106,445,471	577,695	184.00
Utah	16,509,722	94,983	174.00
Vermont	10,966,762	12,593	871.00
Virginia	39,451,942	243,000	162.00
Washington	43,657,618	226,118	193.00
W. Virginia	11,349,872	59,199	192.00
Wisconsin	63,622,648	187,637	339.00
Wyoming	4,755,119	14,249	334.00
Guam	740,053	2,817	263.00
Puerto Rico	22,003,155	109,809	200.00
Virgin Islands	888,145	1,769	502.00
Am. Samoa	215,099	1,702	126.00
Pacific Tr. Terr.	1,510,650	2,914	518.00

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 98B

Rank Order of States by Federal and State/Local Expenditures per Student in Vocational Education, 1970-71

U.S. MEAN = $262.00

State	Expenditure	State	Expenditure
Massachusetts	$1,001.00	Minnesota	220.00
Vermont	871.00	North Carolina	219.00
Pacific Tr. Territories	518.00	North Dakota	217.00
Virgin Islands	502.00	South Dakota	217.00
Ohio	474.00	Indiana	215.00
Pennsylvania	450.00	Idaho	206.00
New York	442.00	Nevada	206.00
Maine	434.00	Mississippi	205.00
Maryland	398.00	California	200.00
Dist. of Columbia	351.00	Puerto Rico	200.00
Rhode Island	348.00	Kentucky	195.00
Wisconsin	339.00	Washington	193.00
Illinois	338.00	West Virginia	192.00
Wyoming	334.00	Hawaii	186.00
Alaska	311.00	Texas	184.00
Connecticut	284.00	New Mexico	182.00
Oklahoma	265.00	Georgia	181.00
Guam	263.00	Utah	174.00
Missouri	254.00	Florida	172.00
New Hampshire	252.00	Kansas	172.00
Colorado	250.00	Nebraska	170.00
Montana	250.00	Michigan	163.00
Iowa	248.00	Arizona	162.00
Alabama	245.00	Virginia	162.00
Delaware	234.00	Arkansas	134.00
Oregon	227.00	New Jersey	134.00
South Carolina	226.00	Louisiana	133.00
Tennessee	222.00	American Samoa	126.00

TABLE 99A

Federal and State/Local Expenditures per Student in Secondary Vocational Education, 1970-71

States	Federal and State/Local Expenditures for Secondary Vocational Education (Rounded)	Enrollment in Secondary Vocational Education	Expenditures per Student in Secondary Vocational Education (Rounded)
U.S. TOTAL	$1,547,847,166[1]	5,157,010	$300.00
Alabama	21,736,504	89,061	244.00
Alaska	3,055,000	8,494	360.00
Arizona	8,912,000	50,310	177.00
Arkansas	8,017,000	53,996	148.00
California	113,215,000	540,474	209.00
Colorado	15,121,000	45,998	329.00
Connecticut	22,218,000	78,191	284.00
Delaware	3,999,863	27,439	146.00
Dist. of C.	2,941,000	5,681	518.00
Florida	48,246,000	201,016	240.00
Georgia	26,614,214	157,829	169.00
Hawaii	2,895,000	23,040	125.00
Idaho	2,903,000	21,844	133.00
Illinois	130,011,000	432,217	301.00
Indiana	23,162,340	86,479	268.00
Iowa	8,324,000	50,211	166.00
Kansas	10,047,000	38,468	261.00
Kentucky	19,139,000	87,872	218.00
Louisiana	13,777,000	126,251	109.00
Maine	7,158,000	16,458	435.00
Maryland	47,552,000	100,668	472.00
Massachusetts	112,198,000	95,411	1,176.00
Michigan	32,225,000	164,234	196.00
Minnesota	15,350,000	104,837	146.00
Mississippi	12,035,000	54,729	220.00

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[1] Only that part of the cost for students in vocational education is included which represents vocational classes, probably one-third to one-half the total.

TABLE 99A Cont'd

States	Federal and State/Local Expenditures for Secondary Vocational Education (Rounded)	Enrollment in Secondary Vocational Education	Expenditures per Student in Secondary Vocational Education (Rounded)
Missouri	29,087,000	98,547	295.00
Montana	3,673,000	16,707	220.00
Nebraska	5,716,000	38,336	149.00
Nevada	2,793,000	12,596	222.00
New Hampshire	3,440,350	18,378	187.00
New Jersey	34,046,000	181,476	188.00
New Mexico	6,238,000	35,305	177.00
New York	199,577,000	445,606	448.00
North Carolina	42,765,000	161,697	264.00
North Dakota	2,990,000	16,470	182.00
Ohio	117,433,000	181,937	645.00
Oklahoma	21,777,000	60,856	358.00
Oregon	10,903,000	55,022	198.00
Pennsylvania	127,888,000	184,619	693.00
Rhode Island	4,746,000	12,026	395.00
South Carolina	18,363,000	70,655	260.00
South Dakota	2,787,000	14,331	194.00
Tennessee	16,626,000	95,472	174.00
Texas	77,344,986	306,570	252.00
Utah	11,509,000	65,131	177.00
Vermont	10,595,000	9,601	1,104.00
Virginia	31,956,000	129,770	246.00
Washington	18,590,000	111,681	166.00
West Virginia	8,501,000	33,161	256.00
Wisconsin	6,611,000	57,017	116.00
Wyoming	2,976,836	11,851	251.00
Guam	636,676	430	1,481.00
Puerto Rico	15,430,110	65,032	237.00
Virgin Islands	845,927	1,744	485.00
Am. Samoa	166,360	1,095	152.00
Pacific Tr. Terr.	984,000	2,683	367.00

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 99B

Rank Order of States by Federal and State/Local Expenditures per Student in Secondary Vocational Education, 1970-71

U.S. MEAN = $300.00

State	Expenditure	State	Expenditure
Guam	$1,481.00	Puerto Rico	$237.00
Massachusetts	1,176.00	Nevada	222.00
Vermont	1,104.00	Mississippi	220.00
Pennsylvania	693.00	Montana	220.00
Ohio	645.00	Kentucky	218.00
Dist. of C.	518.00	California	209.00
Virgin Islands	485.00	Oregon	198.00
Maryland	472.00	Michigan	196.00
New York	448.00	South Dakota	194.00
Maine	435.00	New Jersey	188.00
Rhode Island	395.00	New Hampshire	187.00
Pacific Tr. Terr.	367.00	North Dakota	182.00
Alaska	360.00	Arizona	177.00
Oklahoma	358.00	New Mexico	177.00
Colorado	329.00	Utah	177.00
Illinois	301.00	Tennessee	174.00
Missouri	295.00	Georgia	169.00
Connecticut	284.00	Iowa	166.00
Indiana	268.00	Washington	166.00
North Carolina	264.00	Am. Samoa	152.00
Kansas	261.00	Nebraska	149.00
South Carolina	260.00	Arkansas	148.00
West Virginia	256.00	Delaware	146.00
Texas	252.00	Minnesota	146.00
Wyoming	251.00	Idaho	133.00
Virginia	246.00	Hawaii	125.00
Alabama	244.00	Wisconsin	116.00
Florida	240.00	Louisiana	109.00

TABLE 100A

Federal and State/Local Expenditures per Student in Post-Secondary Vocational Education, 1970-71

States	Federal and State/ Local Expenditures in Post-Secondary Vocational Education (Rounded)	Enrollment in Post-Secondary Vocational Education	Expenditures per Student in Post-Secondary Vocational Education (Rounded)
U.S. TOTAL	$610,564,762[1]	1,141,071	$534.00
Alabama	13,446,127	17,041	789.00
Alaska	901,000	806	1,118.00
Arizona	4,463,000	22,281	200.00
Arkansas	5,429,000	6,324	858.00
California	104,659,000	338,564	309.00
Colorado	7,950,000	14,274	557,00
Connecticut	545,000	6,674	82.00
Delaware	3,066,672	718	4,271.00
Dist. of C.	563,000	1,144	492.00
Florida	17,351,000	69,634	249.00
Georgia	16,063,855	14,814	1,084.00
Hawaii	3,988,000	7,052	565.00
Idaho	3,278,000	2,820	1,162.00
Illinois	41,162,000	62,186	662.00
Indiana	4,174,304	6,213	672.00
Iowa	20,879,000	13,584	1,537.00
Kansas	5,536,000	7,393	749.00
Kentucky	7,569,000	9,308	813.00
Louisiana	8,006,000	19,076	420.00
Maine	3,005,000	1,628	1,846.00
Maryland	7,999,000	12,758	626.00
Massachusetts	7,393,000	8,711	849.00
Michigan	15,535,000	42,632	365.00
Minnesota	29,835,000	20,122	1,483.00
Mississippi	7,410,000	8,268	896.00

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[1] Only that part of the cost for students in vocational education is included which represents vocational classes, probably about one-third to one half total.

TABLE 100A Cont'd

States	Federal and State/ Local Expenditures in Post-Secondary Vocational Education (Rounded)	Enrollment in Post-Secondary Vocational Education	Expenditures per Student in Post-Secondary Vocational Education (Rounded)
Missouri	2,171,000	11,797	184.00
Montana	3,113,000	3,218	967.00
Nebraska	5,028,000	5,362	937.00
Nevada	587,000	1,936	303.00
New Hampshire	2,068,427	1,820	1,136.00
New Jersey	3,575,000	20,530	174.00
New Mexico	2,391,000	6,078	393.00
New York	47,171,000	58,965	800.00
North Carolina	31,773,000	42,536	747.00
North Dakota	2,526,000	4,117	613.00
Ohio	9,432,000	13,911	678.00
Oklahoma	3,819,000	5,322	718.00
Oregon	9,586,000	15,243	629.00
Pennsylvania	17,711,000	27,381	647.00
Rhode Island	1,397,000	1,081	1,292.00
South Carolina	2,069,000	3,200	647.00
South Dakota	1,737,000	1,806	962.00
Tennessee	14,038,000	16,346	859.00
Texas	24,198,144	41,912	577.00
Utah	4,473,000	12,294	364.00
Vermont	269,000	173	1,555.00
Virginia	5,335,000	15,833	337.00
Washington	22,238,000	58,233	382.00
West Virginia	1,870,000	2,014	929.00
Wisconsin	45,809,000	38,136	1,201.00
Wyoming	1,570,215	1,436	1,093.00
Guam	40,008	57	702.00
Puerto Rico	3,903,053	15,545	251.00
Virgin Islands	32,218	25	1,289.00
Am. Samoa	48,739	607	80.00
Pacific Tr. Terr.	379,000	132	2,871.00

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C. FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C. FY 1971.

TABLE 100B

Rank Order of States by Federal and State/Local Expenditures per Student in Post-Secondary Vocational Education, 1970-71

U.S. MEAN = $534.00

State	Expenditure	State	Expenditure
Delaware	4,271.00	Guam	702.00
Pacific Trust Terr.	2,871.00	Ohio	678.00
Maine	1,846.00	Indiana	672.00
Vermont	1,555.00	Illinois	662.00
Iowa	1,537.00	Pennsylvania	647.00
Minnesota	1,483.00	South Carolina	647.00
Rhode Island	1,292.00	Oregon	629.00
Virgin Islands	1,289.00	Maryland	626.00
Wisconsin	1,201.00	North Dakota	613.00
Idaho	1,162.00	Texas	577.00
New Hampshire	1,136.00	Hawaii	565.00
Alaska	1,118.00	Colorado	557.00
Wyoming	1,093.00	Dist. of Columbia	492.00
Georgia	1,084.00	Louisiana	420.00
Montana	967.00	New Mexico	393.00
South Dakota	962.00	Washington	382.00
Nebraska	937.00	Michigan	365.00
West Virginia	929.00	Utah	364.00
Mississippi	896.00	Virginia	337.00
Tennessee	859.00	California	309.00
Arkansas	858.00	Nevada	303.00
Massachusetts	849.00	Puerto Rico	251.00
Kentucky	813.00	Florida	249.00
New York	800.00	Arizona	200.00
Alabama	789.00	Missouri	184.00
Kansas	749.00	New Jersey	174.00
North Carolina	747.00	Connecticut	82.00
Oklahoma	718.00	American Samoa	80.00

TABLE 101A

Federal and State/Local Expenditures per Student in Adult Vocational Education, 1970-71

States	Federal and State/Local Expenditures in Adult Vocational Education	Enrollment in Adult Vocational Education	Expenditures per Student in Adult Vocational Education (Rounded)
U.S. TOTAL	$214,791,894[1]	2,850,425	$75.00
Alabama	907,339	41,118	22.00
Alaska	137,000	3,847	36.00
Arizona	921,000	15,880	58.00
Arkansas	434,000	43,587	10.00
California	22,896,000	325,573	70.00
Colorado	786,000	35,037	22.00
Connecticut	1,357,000	28,829	47.00
Delaware	223,371	3,054	73.00
Dist. of C.	364,000	4,183	87.00
Florida	9,793,000	167,473	58.00
Georgia	3,577,449	83,244	43.00
Hawaii	335,000	8,600	38.00
Idaho	73,000	5,706	13.00
Illinois	11,808,000	46,775	252.00
Indiana	853,688	38,646	22.00
Iowa	2,513,000	64,116	39.00
Kansas	771,000	47,290	16.00
Kentucky	1,592,000	48,144	33.00
Louisiana	1,425,000	29,046	49.00
Maine	200,000	5,338	37.00
Maryland	956,000	38,348	24.00
Massachusetts	381,000	17,828	21.00
Michigan	4,436,000	113,189	39.00
Minnesota	3,109,000	94,126	33.00
Mississippi	1,391,000	38,771	36.00

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[1] Only that part of the cost for students in vocational education is include which represents vocational classes, about one-third to one half total.

TABLE 101A Cont'd

States	Federal and State/Local Expenditures in Adult Vocational Education	Enrollment in Adult Vocational Education	Expenditures per Student in Adult Vocational Education (Rounded)
Missouri	1,180,000	33,288	35.00
Montana	95.000	7,403	13.00
Nebraska	380,000	21,620	17.00
Nevada	321,000	3,578	90.00
New Hampshire	297,279	2,884	103.00
New Jersey	1,631,000	90,510	18.00
New Mexico	326,000	7,795	42.00
New York	34,433,000	165,146	209.00
North Carolina	7,984,000	172,584	46.00
North Dakota	181,000	5,628	32.00
Ohio	57,693,000	193,196	299.00
Oklahoma	1,972,000	38,045	52.00
Oregon	2,439,000	30,825	79.00
Pennsylvania	6,454,000	125,835	51.00
Rhode Island	258,000	5,263	49.00
South Carolina	709,000	19,761	36.00
South Dakota	131,000	5,276	25.00
Tennessee	1,263,000	31,754	40.00
Texas	4,902,341	229,213	21.00
Utah	558,000	17,558	32.00
Vermont	104,000	2,819	37.00
Virginia	2,160,000	97,397	22.00
Washington	2,827,000	56,204	50.00
West Virginia	952,000	24,024	40.00
Wisconsin	11,202,000	92,484	121.00
Wyoming	208,068	962	216.00
Guam	63,366	2,330	27.00
Puerto Rico	2,669,992	29,232	91.00
Virgin Islands	10,000	0	0
Am. Samoa	0	0	0
Pacific Tr. Terr.	148,000	99	1,495.00

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 101B

Rank Order of States by Federal and State/Local Expenditures per Student in Adult Vocational Education, 1970-71

U.S. MEAN = $75.00

State	Expenditure	State	Expenditure
Pacific Tr. Terr.	$1,495.00	Hawaii	$38.00
Ohio	299.00	Maine	37.00
Illinois	252.00	Vermont	37.00
Wyoming	216.00	Alaska	36.00
New York	209.00	Mississippi	36.00
Wisconsin	121.00	South Carolina	36.00
New Hampshire	103.00	Missouri	35.00
Puerto Rico	91.00	Kentucky	33.00
Nevada	90.00	Minnesota	33.00
Dist. of Columbia	87.00	North Dakota	32.00
Oregon	79.00	Utah	32.00
Delaware	73.00	Guam	27.00
California	70.00	South Dakota	25.00
Arizona	58.00	Maryland	24.00
Florida	58.00	Alabama	22.00
Oklahoma	52.00	Colorado	22.00
Pennsylvania	51.00	Indiana	22.00
Washington	50.00	Virginia	22.00
Louisiana	49.00	Massachusetts	21.00
Rhode Island	49.00	Texas	21.00
Connecticut	47.00	New Jersey	18.00
North Carolina	46.00	Nebraska	17.00
Georgia	43.00	Kansas	16.00
New Mexico	42.00	Idaho	13.00
Tennessee	40.00	Montana	13.00
West Virginia	40.00	Arkansas	10.00
Iowa	39.00	Amercian Samoa	0.00
Michigan	39.00	Virgin Islands	0.00

98B were not particularly great except in a few cases. Nineteen States were within $50 of the national cost per student, and only ten States were more than $100 above or below the national cost. Massachusetts was substantially higher than all other States in its reported cost per student, $1,001, followed by Vermont at $871, Ohio at $474, Pennsylvania at $450 and New York at $442. All of these States are on or near the Eastern seaboard where the cost of education generally is higher than in the rest of the Nation. At the opposite end of the scale were States substantially lower than the national average -- Arkansas, $134, New Jersey, $134, and Louisiana, $133.

Tables 99A, 100A, and 101A show the reported vocational education costs per student in secondary, post-secondary, and adult programs. Nationally these were $300, $534, and $75 respectively -- all, of course, substantially below the actual cost, probably by different amounts.

Tables 102, 103, and 104 show the reported expenditures for vocational education in secondary, post-secondary, and adult programs as percentages of the total. Nationally the division was 64.4 percent for secondary, 25.4 percent for post-secondary, and 8.9 percent for adult. States showed substantial variations, since enrollment figures are quite different. The actual variations in total cost would depend on complete local school cost data.

Increasing Federal Support Related to Expansion of Vocational Education Enrollment

One of the questions about Federal support of vocational education of interest both to Congress and the general public is whether increasing Federal expenditures lead to geometric increases in enrollments. The following tables show the relationship between these two variables nationally and in each State over a ten-year period, 1961-1971. When the entire period is considered, the answer to the question seems to be negative -- increases in expenditures far exceeded increases in enrollments. However, when the two halves of the ten-year period are considered separately the picture is drastically different for the second half. It is altogether possible that now and in the years ahead such a geometric relationship does and will exist.

During the first five-year period, two developments took place that had direct bearing on the relationship of Federal expenditures to enrollments, both resulting from the Vocational Education Act of 1963. One was the extension of vocational education support to two new fields, office occupations and health. Since these had not previously been included, such enrollments then existing tended to inflate total enrollment figures. The other development, which evidently more than canceled the effect of the first, was the shifting of a substantial part of the emphasis in vocational education from numbers educated to the nature and quality of instruction. States were now expected to use both Federal and State funds for a variety of ancillary services

TABLE 102

Comparison of Secondary Vocational Education Federal and State/Local Expenditures with Secondary Vocational Education Enrollment, 1970-71

States	Federal and State/Local Expenditures for Vocational Education	Total Secondary Vocational Education Expenditures (Rounded)	Percent of the Total Vocational Education Expenditures	Secondary Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	$2,402,378,965[1]	$1,547,847,166	64.4	56.4
Alabama	36,089,970	21,736,504	60.0	60.5
Alaska	4,093,640	3,055,000	74.6	64.6
Arizona	14,294,774	8,912,000	62.3	56.9
Arkansas	13,879,795	8,017,000	57.8	52.0
California	240,770,819	113,215,000	47.0	44.9
Colorado	23,857,705	15,121,000	63.4	48.3
Connecticut	32,337,605	22,218,000	68.7	68.8
Delaware	7,289,906	3,999,863	54.9	87.9
Dist. of C.	3,867,496	2,941,000	76.0	51.6
Florida	75,390,000	48,246,000	64.0	45.9
Georgia	46,255,518	26,614,214	57.5	61.7
Hawaii	7,217,678	2,895,000	40.1	59.5
Idaho	6,253,438	2,903,000	46.4	71.9
Illinois	182,987,078	130,011,000	71.0	79.9
Indiana	28,190,332	23,162,340	82.2	65.8
Iowa	31,716,697	8,324,000	26.2	39.3
Kansas	16,353,924	10,047,000	61.4	41.3
Kentucky	28,299,587	19,139,000	67.6	60.5
Louisiana	23,208,602	13,777,000	59.4	72.4
Maine	10,164,358	7,158,000	70.4	70.3
Maryland	56,507,853	47,552,000	84.2	71.0
Massachusetts	122,084,883	112,198,000	93.3	78.2
Michigan	52,195,200	32,225,000	61.7	51.3
Minnesota	48,285,289	15,350,000	31.8	47.9
Mississippi	20,834,937	12,035,000	57.8	53.8

[1] Only that part of the cost for students in vocational education is included which represents vocational classes, about one-third to one-half the total.

TABLE 102 Cont'd

States	Federal and State/Local Expenditures for Vocational Education	Total Secondary Vocational Education Expenditures (Rounded)	Percent of the Total Vocational Education Expenditures	Secondary Enrollment as a Percent of Total Vocational Education Enrollment
Missouri	36,421,005	29,087,000	79.9	68.6
Montana	6,818,544	3,673,000	53.9	61.1
Nebraska	11,124,629	5,716,000	51.4	58.7
Nevada	3,735,613	2,793,000	74.8	69.6
New Hampshire	5,806,056	3,440,350	59.3	79.6
New Jersey	39,252,342	34,046,000	86.7	62.0
New Mexico	8,956,384	6,238,000	69.6	71.8
New York	296,270,454	199,577,000	67.4	66.5
North Carolina	82,522,353	42,765,000	51.8	42.9
North Dakota	5,697,543	2,990,000	52.5	62.8
Ohio	184,557,094	117,433,000	63.6	46.8
Oklahoma	27,568,857	21,777,000	79.0	58.4
Oregon	22,929,003	10,903,000	47.6	54.4
Pennsylvania	152,053,451	127,888,000	84.1	54.6
Rhode Island	6,399,376	4,746,000	74.2	65.5
South Carolina	21,141,336	18,363,000	86.9	75.5
South Dakota	4,654,284	2,787,000	59.9	66.9
Tennessee	31,927,301	16,626,000	52.1	66.5
Texas	106,445,471	77,344,986	72.7	53.1
Utah	16,509,722	11,509,000	69.7	68.6
Vermont	10,966,762	10,595,000	96.6	76.2
Virginia	39,451,942	31,956,000	81.0	53.4
Washington	43,657,618	18,590,000	42.6	49.4
West Virginia	11,349,872	8,501,000	74.9	56.0
Wisconsin	63,622,648	6,611,000	10.4	30.4
Wyoming	4,755,119	2,976,836	62.6	83.2
Guam	740,053	636,676	86.0	15.3
Puerto Rico	22,003,155	15,430,110	70.1	59.2
Virgin Islands	888,145	845,927	95.2	98.6
American Samoa	215,099	166,360	77.3	64.3
Pacific Tr. Terr.	1,510,650	984,000	65.1	92.1

Source: U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
Table 3A of this Report.

TABLE 103

Comparison of Post-Secondary Vocational Education Federal and State/Local Expenditures with Post-Secondary Vocational Education Enrollment, 1970-71

States	Federal and State/Local Expenditures for Vocational Education	Total Post-Secondary Vocational Education Expenditures (Rounded)	Percent of the Total Vocational Education Expenditures	Post-Secondary Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	$2,402,378,965[1]	$610,564,762	25.4	12.5
Alabama	36,089,970	13,446,127	37.3	11.6
Alaska	4,093,640	901,000	22.0	6.1
Arizona	14,294,774	4,463,000	31.2	25.1
Arkansas	13,879,795	5,429,000	39.1	6.1
California	240,770,819	104,659,000	43.5	28.1
Colorado	23,857,705	7,950,000	33.3	14.9
Connecticut	32,337,605	545,000	1.7	5.9
Delaware	7,289,906	3,066,672	42.1	2.3
Dist. of C.	3,867,496	563,000	14.6	10.3
Florida	75,390,000	17,351,000	23.0	15.9
Georgia	46,255,518	16,063,855	34.7	5.8
Hawaii	7,217,678	3,988,000	55.3	18.2
Idaho	6,253,438	3,278,000	52.4	9.2
Illinois	182,987,078	41,162,000	22.5	11.4
Indiana	28,190,332	4,174,304	14.8	4.7
Iowa	31,716,697	20,879,000	65.8	10.6
Kansas	16,353,924	5,536,000	33.9	7.9
Kentucky	28,299,587	7,569,000	26.7	6.4
Louisiana	23,208,602	8,006,000	34.5	10.9
Maine	10,164,358	3,005,000	29.6	7.0
Maryland	56,507,853	7,999,000	14.2	8.9
Massachusetts	122,084,883	7,393,000	6.1	7.1
Michigan	52,195,200	15,535,000	29.8	13.3
Minnesota	48,285,289	29,835,000	61.8	9.2
Mississippi	20,834,937	7,410,000	35.6	8.1

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[1] Only that part of the cost for students in vocational education is included which represents vocational classes, about one-third to one-half the total.

TABLE 103 Cont'd

States	Federal and State/Local Expenditures for Vocational Education	Total Post-Secondary Vocational Education Expenditures (Rounded)	Percent of the Total Vocational Education Expenditures	Post-Secondary Enrollment as a Percent of Total Vocational Education Enrollment
Missouri	36,421,005	2,171,000	6.0	8.2
Montana	6,818,544	3,113,000	45.7	11.8
Nebraska	11,124,629	5,028,000	45.2	8.2
Nevada	3,735,613	587,000	15.7	10.7
New Hampshire	5,806,056	2,068,427	35.6	7.9
New Jersey	39,252,342	3,575,000	9.1	7.0
New Mexico	8,956,384	2,391,000	26.7	12.3
New York	296,270,454	47,171,000	15.9	8.8
North Carolina	82,522,353	31,773,000	38.5	11.3
North Dakota	5,697,543	2,526,000	44.3	15.7
Ohio	184,557,094	9,432,000	5.1	3.6
Oklahoma	27,568,857	3,819,000	13.4	5.1
Oregon	22,929,003	9,586,000	41.8	15.1
Pennsylvania	152,053,451	17,711,000	11.6	8.1
Rhode Island	6,399,376	1,397,000	21.8	5.9
South Carolina	21,141,336	2,069,000	9.8	3.4
South Dakota	4,654,284	1,737,000	37.3	8.4
Tennessee	31,927,301	14,038,000	44.0	11.4
Texas	106,445,471	24,198,144	22.7	7.2
Utah	16,509,722	4,473,000	27.1	12.9
Vermont	10,966,762	269,000	2.5	1.4
Virginia	39,451,942	5,335,000	13.5	6.5
Washington	43,657,618	22,238,000	50.9	25.8
West Virginia	11,349,872	1,870,000	16.5	3.4
Wisconsin	63,622,648	45,809,000	72.0	20.3
Wyoming	4,755,119	1,570,215	33.0	10.1
Guam	740,053	40,008	5.4	2.0
Puerto Rico	22,003,155	3,903,053	17.7	14.2
Virgin Islands	888,145	32,218	3.6	1.4
American Samoa	215,099	48,739	22.7	35.6
Pacific Tr. Terr.	1,510,650	379,000	25.1	4.5

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
Table 6A of this Report.

TABLE 104

Comparison of Adult Vocational Education Federal and State/Local Expenditures with Adult Vocational Education Enrollment, 1970-71

States	Federal and State/Local Expenditures for Vocational Education	Total Adult Vocational Education Expenditures (Rounded)	Percent of Total Vocational Education Expenditures	Adult Enrollment as a Percent of Total Vocational Education Enrollment
U.S. TOTAL	$2,402,378,965[1]	$214,791,894	8.9	31.2
Alabama	36,089,970	907,339	2.5	27.9
Alaska	4,093,640	137,000	3.3	29.3
Arizona	14,294,774	921,000	6.4	17.9
Arkansas	13,879,795	434,000	3.1	41.9
California	240,770,819	22,896,000	9.5	27.0
Colorado	23,857,705	786,000	3.3	36.8
Connecticut	32,337,605	1,357,000	4.2	25.4
Delaware	7,289,906	223,371	3.1	9.8
Dist. of C.	3,867,496	364,000	9.4	38.0
Florida	75,390,000	9,793,000	13.0	38.2
Georgia	46,255,518	3,577,449	7.7	32.5
Hawaii	7,217,678	335,000	4.6	22.2
Idaho	6,253,438	73,000	1.2	18.8
Illinois	182,987,078	11,808,000	6.5	8.6
Indiana	28,190,332	853,688	3.0	29.4
Iowa	31,716,697	2,513,000	7.9	50.1
Kansas	16,353,924	771,000	4.7	50.8
Kentucky	28,299,587	1,592,000	5.6	33.1
Louisiana	23,208,602	1,425,000	6.1	16.7
Maine	10,164,358	200,000	2.0	22.8
Maryland	56,084,883	956,000	1.7	20.0
Massachusetts	122,084,883	381,000	.3	14.6
Michigan	52,195,200	4,436,000	8.5	35.4
Minnesota	48,285,289	3,109,000	6.4	43.0
Mississippi	20,834,937	1,391,000	6.7	38.1

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[1] Only that part of the cost for students in vocational education is included which represents vocational classes, about one-third to one-half the total.

TABLE 104 Cont'd

States	Federal and State/Local Expenditures for Vocational Education	Total Adult Vocational Education Expenditures (Rounded)	Percent of Total Vocational Education Expenditures	Adult Enrollment as a Percent of Total Vocational Education Enrollment
Missouri	36,421,005	1,180,000	3.2	23.2
Montana	6,818.544	95,000	1.4	27.1
Nebraska	11,124,629	380,000	3.4	33.1
Nevada	3,735,613	321,000	8.6	20.0
New Hampshire	5,806,056	297,279	5.1	12.5
New Jersey	39,252,342	1,631,000	4.2	30.9
New Mexico	8,956,384	326,000	3.6	15.9
New York	296,270,454	34,433,000	11.6	24.7
North Carolina	82,522,353	7,984,000	9.7	45.8
North Dakota	5,697,543	181,000	3.2	21.5
Ohio	184,557,094	57,693,000	31.3	49.7
Oklahoma	27,568,857	1,972,000	7.2	36.5
Oregon	22,929,003	2,439,000	10.6	30.5
Pennsylvania	152,053,451	6,454,000	4.2	37.2
Rhode Island	6,399,376	258,000	4.0	28.6
South Carolina	21,141,336	709,000	3.4	21.1
South Dakota	4,654,284	131,000	2.8	24.6
Tennessee	31,927,301	1,263,000	4.0	22.1
Texas	106,445,471	4,902,341	4.6	39.7
Utah	16,509,722	558,000	3.4	18.5
Vermont	10,966,762	104,000	.9	22.4
Virginia	39,451,942	2,160,000	5.5	40.1
Washington	43,657,618	2,827,000	6.5	24.9
West Virginia	11,349,872	952,000	8.4	40.6
Wisconsin	63,622,648	11,202,000	17.6	49.3
Wyoming	4,755,119	208,068	4.4	6.8
Guam	740,053	63,366	8.6	82.7
Puerto Rico	22,003,155	2,669,992	12.1	26.6
Virgin Islands	888,145	10,000	1.2	0
American Samoa	215,099	0	0	0
Pacific Tr. Terr.	1,510,650	148,000	8.8	3.4

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
Table 7A of this Report.

such as research, curriculum development, and teacher training. They could also use these funds for construction of vocational education facilities as well as equipment, thereby diverting a portion of vocational education funds from classroom support into non-teaching activities.

The first of these developments -- counting additional enrollments already in existence -- was largely completed by 1966, while the second -- the diversion of funds into non-teaching activities -- was not. During the second five-year period, therefore, the increase of Federal expenditures should have resulted in a comparatively smaller increase in enrollments. Yet, exactly the opposite happened.

One reason for the wide differences between percentage increases of Federal expenditures and vocational education enrollments may be a statistical error of unknown dimensions, probably different in every State. Enrollment statistics in 1961 were largely, if not entirely, arrived at by simply adding class totals, which included some students twice or three times or more -- a duplicated count. In 1966 and 1971 the enrollment statistics were supposed to be unduplicated, and by 1971 many of the States had eliminated duplication entirely.

Variations among the States for the ten-year period, while substantial, are not significant, due to the multiplicity of contributing factors. Variations are smaller in the second half of the period, and while most of the factors still apply, the variations at least measure the combined results of these factors. The Federal expenditure growth rate varies from one State to another primarily because of variations in the population growth rate, since population is the major element in the Federal allocation formula. It may also fluctuate slightly as allocated funds are carried over by a State from one year to the next, resulting in proportionately larger Federal expenditures the year such carry-over funds are spent.

Inflation

The vocational education growth rate is controlled in some respects by total funds available, which include State and local; and these, almost certainly, will vary among the different States. Federal funds act as a generator of State and local funds, but only to a limited extent. Other factors of equal or greater importance affecting vocational education growth rates are public interest and the extent to which it is developed in students, parents, teachers, administrators, employers, and State and local governing boards; the efforts of State department and school district staff personnel to expand programs; the availability of facilities and equipment; the efficiency with which programs in the schools are operated; the extent to which emphasis is placed on growth at the expense of quality; and the extent to which vocational education funds are directed into programs with higher or lower costs per student.

Since most, if not all, of these factors apply in the variations in enrollment growth rates among States, they also apply in the variations in difference between Federal expenditure growth rates and enrollment growth rates. Thus a variation from 149 percentage points of difference in Nevada to 1,233 percentage points in Arizona in 1961-71 may mean that Nevada emphasizes growth, or has less expensive programs, or has generated more public interest, or had better facilities and equipment to begin with, or has a higher percent of its students in vocational programs requiring relatively inexpensive facilities, equipment, and student/teacher ratios; Arizona may have put greater emphasis on redesign of programs and new equipment,or may have developed or expanded more costly programs, or may have had a higher population growth rate resulting in proportionately higher Federal allocations. These are simply possibilities; actual causal factors in either case or in any of the States have not been determined.

Tables 105 and 106A show the national increases and variations among States for period 1961-1971; nationally the percent of increase of Federal expenditures exceed that of enrollments in vocational education by 585 percentage points. Tables 107 and 108A show these increases and variations for the first half of the decade only; the percent of increase of Federal expenditures exceeded that of enrollments by 331.7 percentage points. Tables 109 and 110 have the same data for the second half of the decade; the difference was down to only 17.5 percentage points.

This is even more remarkable when the effects of the Vocational Education Amendments of 1968 are considered. This legislation required that ten percent of the Federal appropriation going to each State had to be used for special programs for the handicapped, fifteen percent for the disadvantaged, and fifteen percent for post-secondary education; this could reduce the number of students who could be enrolled for the same amount of funds available, and thus reduce even more the probable increase in total vocational education enrollments resulting from increased Federal expenditures. The fact that this did not happen, that the actual rates of increase in Federal expenditures and enrollments are nearly the same for the period 1966 to 1971, suggests that a third development may be taking place: Federal funds are being supplemented by substantially increasing State and local funds.[1]

Cost Efficiency and Cost Benefits

The efficiency with which financial resources are used to prepare persons for employment in the programs supported by Federal funds has received increasing attention in recent years. Accountability is the popular word -- qualitative and quantitative measurement of the product as related to the amount of money that went into it. And, at what point in carrying out the objectives of a program does the total cost exceed the total benefits, or, conversely, what benefits must be realized to justify the cost?

Cost efficiency and cost benefit analyses have been undertaken in

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[1] The difficulty in knowing whether this is true is another result of incomplete reporting of local expenditures for vocational education.

TABLE 105

Percent of Increase in Total Federal Expenditures for Vocational Education Compared With Percent of Increase in Total Vocational Education Enrollment, 1961-71

States	Federal Expenditures FY '61	Federal Expenditures FY '71	Percent of Increase in Federal Expenditures FY '61-'71	Vocational Education Enrollment FY '61	Vocational Education Enrollment FY '71	Percent of Increase in Vocational Education Enrollment FY '61-'71
U.S.TOTAL	$48,009,543[1,2]	$394,406,932	722	3,855,564	9,143,890	137[3]
Alabama	1,185,080	9,006,101	660	97,018	147,220	52
Alaska	91,159	772,996	748	1,972	13,147	567
Arizona	255,410	3,961,478	1451	27,859	88,471	218
Arkansas	832,281	5,094,191	512	88,175	103,907	18
California	2,936,374	29,188,862	894	438,753	1,204,611	175
Colorado	434,384	4,466,425	928	55,324	95,309	72
Connect.	490,681	4,174,700	751	31,180	113,694	265
Delaware	237,261	1,123,669	374	10,314	31,211	203
Dist.of C.	172,737	1,672,246	868	8,560	11,008	29
Florida	907,569	12,080,000	1231	128,817	438,087	240
Georgia	1,422,361	11,145,017	684	158,860	255,887	61
Hawaii	202,012	1,681,626	732	18,259	38,692	112
Idaho	311,016	1,826,869	487	15,597	30,370	95
Illinois	1,900,773	16,938,69	791	113,376	541,178	377
Indiana	1,041,437	9,909,592	852	72,371	131,338	81
Iowa	951,304	5,074,073	433	62,466	127,911	105
Kansas	623,314	4,609,569	640	40,192	93,151	132
Kentucky	1,227,253	6,492,518	429	65,776	145,324	121
Louisiana	1,209,313	8,935,299	639	89,936	174,373	94
Maine	260,177	2,383,438	816	9,437	23,424	148
Maryland	558,172	6,422,063	1051	25,707	141,774	451
Mass.	898,383	9,737,007	984	67,568	121,950	80
Michigan	1,845,550	15,131,134	720	136,160	320,055	135
Minnesota	1,165,283	7,901,314	578	94,117	219,085	133
Miss.	1,054,182	5,700,562	441	96,078	101,768	6

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[1] Total Federal expenditures for American Samoa and the Pacific Trust Territories were not available for FY 1961, so these territories have been deleted from this table, and total Federal expenditures for FY 1971 in this table will not equal Federal expenditures totals in other tables.

[2] $27 included in total not included when money is divided among the States due to rounding to the nearest dollar.

[3] For a full understanding of this table it is important that the preceding narrative be examined carefully.

TABLE 105 Cont'd

States	Federal Expenditures FY '61	Federal Expenditures FY '71	Percent of Increase in Federal Expenditures FY '61-'71	Vocational Education Enrollment FY '61	Vocational Education Enrollment FY '71	Percent of Increase in Vocational Education Enrollment FY '61-'71
Missouri	1,211,562	9,290,280	667	66,867	143,632	115
Montana	233,776	1,911,098	717	9,684	27,328	182
Nebraska	558,718	3,026,949	442	31,146	65,318	110
Nevada	239,519	928,451	288	7,574	18,110	139
New Hamp.	229,481	1,605,387	600	7,398	23,082	212
New Jersey	1,027,448	12,026,302	1071	30,151	292,516	870
New Mexico	270,719	2,842,401	950	11,380	49,178	332
New York	3,244,658	30,051,848	826	187,984	669,717	256
N. Carol.	2,068,931	12,742,870	516	143,377	376,817	163
N. Dakota	362,307	1,813,348	401	16,239	26,215	61
Ohio	1,989,441	20,865,391	949	114,756	389,044	239
Oklahoma	934,538	5,788,819	519	73,205	104,223	42
Oregon	507,228	4,230,039	734	33,336	101,090	203
Penn.	2,554,085	19,459,164	662	102,967	337,835	228
Rhode Isl.	174,810	1,259,061	620	8,484	18,370	117
S. Carol.	799,430	7,188,102	799	109,773	93,616	-15
S. Dakota	289,328	1,802,130	523	13,635	21,413	57
Tennessee	1,352,298	8,498,056	528	110,330	143,572	30
Texas	2,143,784	20,9[illegible],[illegible]90	879	366,434	577,695	58
Utah	239,191	2,601,601	988	27,104	94,983	250
Vermont	227,563	1,296,394	470	6,195	12,593	103
Virginia	1,170,864	9,842,320	741	106,864	243,000	127
Washington	798,248	7,222,056	805	106,309	226,118	113
W. Virg.	677,498	4,176,373	516	31,370	59,199	89
Wisconsin	1,262,034	8,341,753	561	102,446	187,637	83
Wyoming	170,589	980,917	475	6,893	14,249	107
Guam	57,581	330,333	474	1,643	2,817	71
Puerto R.	953,851	7,725,717	710	67,011	109,809	64
Virg. Isl.	46,561	149,736	222	1,137	1,769	56

Source: Digest of Annual Reports of State Boards for Vocational Education, FY 1961, U.S. Office of Education, U.S. Department of Health, Education & Welfare, Washington, D.C., 1963, p. 13.

U.S. Office of Education Form 3131, U.S. Department of Health, Education Welfare, Washington, D.C., FY 1971.

U.S. Office of Education Form 3138, U.S. Department of Health, Education Welfare, Washington, D.C., FY 1971.

Vocational & Technical Education Annual Report FY 1961, U.S. Office of Education, Washington, D.C., 1963.

TABLE 106A

Percent of Increase in Total Vocational Education Enrollment Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1961-71

States	Percent of Increase in Federal Expenditures FY '61-'71	Percent of Increase in Vocational Education Enrollment FY '61-'71	Percentage Points of Increase in Expenditures in hxcess of Percentage Points of Increase in Enrollment
U.S. TOTAL	722[1]	137	585
Alabama	660	52	608
Alaska	748	567	181
Arizona	1451	218	1233
Arkansas	512	18	494
California	894	175	719
Colorado	928	72	856
Connecticut	751	265	486
Delaware	374	203	171
Dist. of C.	868	29	839
Florida	1231	240	991
Georgia	684	61	623
Hawaii	732	112	620
Idaho	487	95	392
Illinois	791	377	414
Indiana	852	81	771
Iowa	433	105	328
Kansas	640	132	508
Kentucky	429	121	308
Louisiana	639	94	545
Maine	816	148	668
Maryland	1051	451	600
Massachusetts	984	80	904
Michigan	720	135	585
Minnesota	578	133	445
Mississippi	441	6	435

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[1] For a full understanding of this table it is important that the preceeding narrative and table be examined carefully.

TABLE 106A Cont'd

States	Percent of Increase in Federal Expenditures FY '61-'71	Percent of Increase in Vocational Education Enrollment FY '61-'71	Percentage Points of Increase in Expenditures in Excess of Percentage Points of Increase in Enrollment
Missouri	667	115	552
Montana	717	182	535
Nebraska	442	110	332
Nevada	288	139	149
New Hampshire	600	212	388
New Jersey	1071	870	201
New Mexico	950	332	618
New York	826	256	570
N. Carolina	516	163	353
N. Dakota	401	61	340
Ohio	949	239	710
Oklahoma	519	42	477
Oregon	734	203	531
Pennsylvania	662	228	434
Rhode Island	620	117	503
S. Carolina	799	-15	814
S. Dakota	523	57	466
Tennessee	528	30	498
Texas	879	58	821
Utah	988	250	738
Vermont	470	103	367
Virginia	741	127	614
Washington	805	113	692
W. Virginia	516	89	427
Wisconsin	561	83	478
Wyoming	475	107	368
Guam	474	71	403
Puerto Rico	710	64	646
Virgin Isl.	222	56	166

Source: Table 105.

TABLE 106B

Rank Order of States by Percent of Increase in Total Vocational Education Enrollment Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1961-71

U.S. MEAN = 585

State	Percent	State	Percent
Arizona	1233	Tennessee	498
Florida	991	Arkansas	494
Massachusetts	904	Connecticut	486
Colorado	856	Wisconsin	478
Dist. of Columbia	839	Oklahoma	477
Texas	821	South Dakota	466
South Carolina	814	Minnestoa	445
Indiana	771	Mississippi	435
Utah	738	Pennsylvania	434
California	719	West Virginia	427
Ohio	710	Illinois	414
Washington	692	Guam	403
Maine	668	Idaho	392
Puerto Rico	646	New Hampshire	388
Georgia	623	Wyoming	368
Hawaii	620	Vermong	367
New Mexico	618	North Carolina	353
Virginia	614	North Dakota	340
Alabama	608	Nebraska	332
Maryland	600	Iowa	328
Michigan	585	Kentucky	308
New York	570	New Jersey	201
Missouri	552	Alaska	181
Louisiana	545	Delaware	171
Montana	535	Virgin Islands	166
Oregon	531	Nevada	149
Kansas	508		
Rhode Island	503		

TABLE 107

Percent of Increase in Federal Expenditures for Vocational Education Compared with Percent of Increase in Total Vocational Education Enrollment, 1961-1966

States	Federal Expenditures FY '61	Federal Expenditures FY '66	Percent of Increase in Federal Expenditures FY '61-'66	Vocational Education Enrollment FY '61	Vocational Education Enrollment FY '66	Percent of Increase in Vocational Education Enrollment FY '61-'66
U.S. TOTAL	$48,009,534[1,2]	233,793,671	387.0	3,855,564	6,070,050	63.5[3]
Alabama	1,185,080	4,357,068	267.7	97,018	124,090	27.9
Alaska	91,159	298,176	227.1	1,972	6,442	22.6
Arizona	255,410	1,974,460	673.1	27,859	45,116	61.9
Arkansas	832,281	3,286,088	294.8	88,175	92,724	5.2
California	2,936,374	16,598,470	465.3	438,753	748,009	70.5
Colorado	434,384	2,285,067	426.0	55,324	73,119	32.2
Connecticut	490,681	2,387,591	386.6	31,180	54,246	73.9
Delaware	237,261	616,047	159.6	10,314	13,222	28.3
Dist. of C.	172,737	748,318	333.2	8,560	9,368	9.4
Florida	907,569	6,865,121	656.4	128,817	272,844	111.8
Georgia	1,422,361	6,735,082	373.5	158,860	192,715	21.3
Hawaii	202,012	981,337	385.8	18,259	16,525	-9.5
Idaho	311,016	1,108,562	256.4	15,597	21,761	39.5
Illinois	1,900,773	9,850,609	418.2	113,376	153,392	35.3
Indiana	1,041,437	5,587,019	436.5	72,371	78,515	8.5
Iowa	951,304	3,402,756	257.7	62,466	77,741	24.5
Kansas	623,314	2,866,961	360.0	40,192	52,971	31.8
Kentucky	1,227,253	5,265,644	329.1	65,776	93,365	41.9
Louisiana	1,209,313	5,133,643	324.5	89,936	110,117	22.4
Maine	260,177	1,079,630	315.0	9,437	10,107	7.1
Maryland	558,172	3,397,093	508.6	25,707	134,023	421.3
Mass.	898,383	5,138,397	472.0	67,568	143,147	111.9
Michigan	1,845,550	9,580,194	419.1	136,160	265,332	94.9
Minnesota	1,165,283	4,709,329	304.1	94,117	128,367	36.4
Miss.	1,054,182	4,326,586	310.4	96,078	94,990	-1.1

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[1] Total Federal expenditures for American Samoa and the Pacific Trust Territories were not available for FY 1961, so these territories have been deleted from this table, and total Federal expenditures for FY 1971 in this table will not equal Federal expenditures totals in other tables.

[2] $27 included in total not included when money is divided among the States due to rounding to the nearest dollar.

[3] For a full understanding of this table it is important that the preceding narrative and tables be examined carefully.

TABLE 107 Cont'd

States	Federal Expenditures FY '61	Federal Expenditures FY '66	Percent of Increase in Federal Expenditures FY '61-'66	Vocational Education Enrollment FY '61	Vocational Education Enrollment FY '66	Percent of Increase in Vocational Education Enrollment FY '61-'66
Missouri	1,211,562	5,463,983	351.0	66,867	94,261	41.0
Montana	233,776	971,109	315.4	9,684	14,390	48.6
Nebraska	558,718	1,944,232	248.0	31,146	50,358	61.7
Nevada	239,519	580,825	142.5	7,574	14,935	97.2
New Hamp.	229,481	848,715	269.8	7,398	8,709	17.7
New Jersey	1,027,448	6,190,533	502.5	30,151	80,936	168.4
New Mexico	270,719	1,497,711	453.2	11,380	20,667	81.6
New York	3,244,658	17,136,323	428.1	187,984	496,434	164.1
N. Carolina	2,068,931	8,363,181	304.2	143,377	234,013	63.2
N. Dakota	362,307	1,250,842	245.2	16,239	21,389	31.7
Ohio	1,989,441	11,000,475	452.9	114,756	208,195	81.4
Oklahoma	934,538	3,733,447	299.5	73,205	78,621	7.4
Oregon	507,228	2,297,684	353.0	33,336	50,098	50.3
Penn.	2,554,085	12,568,131	392.1	102,967	197,018	91.3
Rhode Isl.	174,810	1,151,665	558.8	8,484	8,041	.2
S. Carolina	799,430	4,397,849	450.1	109,773	127,004	15.7
S. Dakota	289,328	1,079,740	273.2	13,635	16,696	22.4
Tennessee	1,352,298	6,147,642	354.6	110,330	118,424	7.3
Texas	2,143,784	14,008,845	553.5	366,434	503,531	37.4
Utah	239,191	1,425,757	496.1	27,104	50,285	85.5
Vermont	227,563	628,811	176.3	6,195	15,177	145.0
Virginia	1,170,864	5,655,911	383.1	106,864	157,324	47.2
Washington	798,248	3,593,541	350.2	106,309	163.765	54.0
W. Virginia	677,498	2,902,203	328.4	31,370	49,309	57.2
Wisconsin	1,262,034	5,119,501	305.7	102,446	177,678	73.4
Wyoming	170,589	591,756	246.9	6,893	8,100	17.5
Guam	57,581	80,902	40.5	1,643	1,239	-24.6
Puerto Rico	953,851	4,531,747	375.1	67,011	89,177	33.1
Virgin Isl.	46,561	51,362	10.3	1,137	2,028	78.4

Source: Vocational & Technical Education Annual Report - FY 1966, U.S. Office of Education, May 1968, p. 88.
Education For a Changing World of Work - A Report of a Panel of Consultants on Vocational Education, U.S. Office of Education, 1968, p. 71-72.
A Bridge Between Man and His Work - a Report of the National Advisory Council on Vocational Education, U.S. Office of Education, November, 1968, p. 12.
Digest of Annual Reports of State Boards for Vocational Education - FY 1961, U.S. Office of Education, U.S. Department of Health, Education, and Welfare, Washington, D.C., 1963, p. 13.

TABLE 108A

Percent of Increase in Total Vocational Education Enrollment Related to Percent of Increase in Total Federal Expenditures for Vocational Education, 1961-66

States	Percent of Increase in Federal Expenditures FY '61-'66	Percent of Increase in Vocational Education Enrollment FY '61-'66	Percentage Points of Increase in Expenditures in Excess of Percentage Points of Increase in Enrollment
U.S. TOTAL	387.0[1]	55.3	331.7
Alabama	267.7	27.9	239.8
Alaska	227.1	226.7	.4
Arizona	673.1	61.9	611.2
Arkansas	294.8	5.2	289.6
California	465.3	70.5	394.8
Colorado	426.0	32.2	393.8
Connecticut	386.6	73.9	312.7
Delaware	159.6	28.3	131.3
Dist. of C.	333.2	9.4	323.8
Florida	656.4	111.8	544.6
Georgia	373.5	21.3	352.2
Hawaii	385.8	-9.5	395.3
Idaho	256.4	39.5	216.9
Illinois	418.2	35.3	382.9
Indiana	436.5	8.5	428.0
Iowa	257.7	24.5	233.2
Kansas	360.0	31.8	328.2
Kentucky	329.1	41.9	287.2
Louisiana	324.5	22.4	302.1
Maine	315.0	7.1	307.9
Maryland	508.6	421.3	87.3
Massachusetts	472.0	111.9	360.1
Michigan	419.1	94.9	324.2
Minnesota	304.1	36.4	267.7
Mississippi	310.4	-1.1	311.5

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[1] For a full understanding of this table it is important that the preceeding narrative and tables be examined carefully.

TABLE 108A Cont'd

States	Percent of Increase in Federal Expenditures FY '61-'66	Percent of Increase in Vocational Education Enrollment FY '61-'66	Percentage Points of Increase in Expenditures in Excess of Percentage Points of Increase in Enrollment
Missouri	351.0	41.0	310.0
Montana	315.4	48.6	266.8
Nebraska	248.0	61.7	186.3
Nevada	142.5	97.2	45.3
New Hampshire	269.8	17.7	252.1
New Jersey	502.5	168.4	334.1
New Mexico	453.2	81.6	371.6
New York	428.1	164.1	264.0
N. Carolina	304.2	63.2	241.0
N. Dakota	245.2	31.7	213.5
Ohio	452.9	81.4	371.5
Oklahoma	299.5	7.4	292.1
Oregon	353.0	50.3	302.7
Pennsylvania	392.1	91.3	300.8
Rhode Isl.	558.8	-5.2	564.0
S. Carolina	450.1	15.7	434.4
S. Dakota	273.2	22.4	250.8
Tennessee	354.6	7.3	347.3
Texas	553.5	37.4	516.1
Utah	496.1	85.5	410.6
Vermont	165.3	145.0	31.3
Virginia	383.1	47.2	335.9
Washington	350.2	54.0	296.2
W. Virginia	328.4	57.2	271.2
Wisconsin	305.7	73.4	232.3
Wyoming	246.9	17.5	229.4
Guam	40.5	-24.6	65.1
Puerto Rico	375.1	33.1	342.0
Virgin Isl.	10.3	78.4	-61.8

Source: Table 107.

TABLE 108B

Rank Order of States by Percent of Increase in Federal Expenditures Compared with Percent of Increase in Vocational Education, 1961-66

U.S. MEAN = 331.7

States	Percent	States	Percent
Arizona	611.2	Pennsylvania	300.8
Rhode Island	564.0	Washington	296.2
Florida	544.6	Oklahoma	292.1
Texas	516.1	Arkansas	289.6
Indiana	428.0	Kentucky	287.2
South Carolina	434.4	West Virginia	271.2
Utah	410.6	Minnesota	267.7
Hawaii	395.3	Montana	266.8
California	394.8	New York	264.0
Colorado	393.8	New Hampshire	252.1
Illinois	382.9	South Dakota	250.8
New Mexico	371.6	North Carolina	241.0
Ohio	371.5	Alabama	239.8
Massachusetts	360.1	Iowa	233.2
Georgia	352.2	Wisconsin	232.3
Tennessee	347.3	Wyoming	229.4
Puerto Rico	342.0	Idaho	216.9
Virginia	335.9	North Dakota	213.5
New Jersey	334.1	Nebraska	186.3
Kansas	328.2	Delaware	131.3
Michigan	324.2	Maryland	87.3
Dist. of Columbia	323.8	Guam	65.1
Connecticut	312.7	Nevada	45.3
Mississippi	311.5	Vermont	31.3
Missouri	310.0	Alaska	.4
Maine	307.9	Virgin Is.	-61.8
Oregon	302.7		
Louisiana	302.1		

TABLE 109

Percent of Increase in Total Federal Expenditures for Vocational Education Compared with Percent of Increase in Total Vocational Education Enrollment, 1966-1971

States	Federal Expenditures FY '66	Federal Expenditures FY '71	Percent of Increase in Federal Expenditures FY '66-'71	Vocational Education Enrollment FY '66	Vocational Education Enrollment FY '71	Percent of Increase in Vocational Education Enrollment FY '66-'71
U.S. TOTAL	$233,793,671[1]	$394,406,932	68.1	6,070,050	9,143,890	50.6[2]
Alabama	4,357,068	9,006,101	120.3	124,090	147,220	18.6
Alaska	298,176	772,996	159.2	6,442	13,147	104.1
Arizona	1,974,460	3,961,478	100.6	45,116	88,471	96.1
Arkansas	3,286,088	5,094,191	55.0	92,724	103,907	12.1
California	16,598,470	29,188,862	75.9	748,009	1,204,611	61.4
Colorado	2,285,067	4,466,425	95.5	73,119	95,309	30.3
Connecticut	2,387,591	4,174,700	74.9	54,246	113,694	109.6
Delaware	616,047	1,123,669	82.4	13,222	31,211	136.1
Dist. of C.	748.318	1,672,246	123.5	9,368	11,008	17.5
Florida	6,865,121	12,080,000	75.9	272,844	438,087	60.6
Georgia	6,735,082	11,145,017	65.6	192,715	255,887	32.8
Hawaii	981,337	1,681,626	71.4	16,525	38,692	134.1
Idaho	1,108,562	1,826,869	64.8	21,761	30,370	39.6
Illinois	9,850,609	16,938,697	72.0	153,392	541,178	252.8
Indiana	5,587,019	9,909,592	77.4	78,515	131,338	67.3
Iowa	3,402,756	5,074,073	49.1	77,741	127,911	64.5
Kansas	2,866,961	4,609,569	60.8	52,971	93,151	75.9
Kentucky	5,265,644	6,492,518	23.3	93,365	145,324	55.7
Louisiana	5,133,643	8,935,299	74.1	110,117	174,373	58.4
Maine	1,079,630	2,383,438	120.8	10,107	23,424	131.8
Maryland	3,397,093	6,422,063	89.0	134,023	141,774	5.8
Mass.	5,138,397	9,737,007	89.5	143,147	121,950	-14.8
Michigan	9,580,194	15,131,134	57.9	265,332	320,055	20.6
Minnesota	4,709,329	7,901,314	67.8	128,367	219,085	70.7
Miss.	4,326,586	5,700,562	31.8	94,990	101,768	7.1

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[1] Total Federal expenditures for American Samoa and the Pacific Trust Territories were not available for FY 1961, so these territories have been deleted from this table, and total Federal expenditures for FY 1971 in this table will not equal Federal expenditures totals in other tables.

[2] For a full understanding of this table it is important that the preceding narrative and tables be examined carefully.

TABLE 109 Cont'd

States	Federal Expenditures FY '66	Federal Expenditures FY '71	Percent of Increase in Federal Expenditures FY '66-'71	Vocational Education Enrollment FY '66	Vocational Education Enrollment FY '71	Percent of Increase in Vocational Education Enrollment FY '66-'71
Missouri	5,463,983	9,290,280	70.0	94,261	143,632	52.2
Montana	971,109	1,911,098	96.8	14,390	27,328	89.9
Nebraska	1,944,232	3,026,949	55.7	50,358	65,318	29.7
Nevada	580,825	928,451	59.9	14,935	18,110	21.3
New Hamp.	848,715	1,605,387	89.2	8,709	23,082	165.0
New Jersey	6,190,533	12,026,302	84.3	80,936	292,516	261.4
New Mexico	1,497,711	2,842,401	99.8	20,667	49,178	138.0
New York	17,136,323	30,051,848	75.4	496,434	669,717	34.9
N. Carolina	8,363,181	12,742,870	52.4	234,013	376,817	61.0
N. Dakota	1,250,842	1,813,348	45.0	21,389	26,215	22.6
Ohio	11,000,475	20,865,391	89.7	208,195	389,044	86.9
Oklahoma	3,733,447	5,788,819	55.1	78,621	104,223	32.6
Oregon	2,297,684	4,230,039	84.1	50,098	101,090	101.8
Penn.	12,568,131	19,459,164	54.8	197,018	337,835	71.5
Rhode Isl.	1,151,665	1,259,061	9.3	8,041	18,370	128.5
S. Carolina	4,397,849	7,188,102	63.4	127,004	93,616	-26.3
S. Dakota	1,079,740	1,802,130	66.9	16,696	21,413	28.3
Tennessee	6,147,642	8,498,056	38.2	118,424	143,572	27.2
Texas	14,008,845	20,980,590	49.8	503,531	577,695	14.7
Utah	1,425,757	2,601,601	82.5	50,285	94,983	88.9
Vermont	628,811	1,296,394	106.2	15,177	12,593	17.0
Virginia	5,655,911	9,842,320	74.0	157,324	243,000	54.5
Washington	3,593,541	7,222,056	100.9	163,765	226,118	38.1
W. Virginia	2,902,203	4,176,373	43.0	49,309	59,199	20.1
Wisconsin	5,119,501	8,341,753	62.8	177,678	187,637	5.6
Wyoming	591,756	980,917	65.8	8,100	14,249	75.9
Guam	80,902	330,333	308.3	1,239	2,817	127.4
Puerto Rico	4,531,747	7,725,717	70.5	89,177	109,809	23.1
Virgin Isl.	51,362	149,736	191.5	2,028	1,769	12.8

Source: Vocational & Technical Education Annual Report FY 1966, U.S. Office of Education, May 1968, p. 88.

A Bridge Between Man and His Work - A Report of the National Advisory Council on Vocational Education, U.S. Office of Education, November 1968, p. 12.

U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

U.S. Office of Education Form 3138, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

TABLE 110

Percent of Increase in Total Vocational Education Enrollment Compared with Percent of Increase in Total Federal Expenditures for Vocational Education, 1966-71

States	Percent of Increase in Federal Expenditures FY '66-'71	Percent of Increase in Total Vocational Education Enrollment FY '66-'71	Percent of Increase in Federal Expenditures Compared with Percent of Increase in Vocational Education
U.S. TOTAL	68.1[1]	50.6	17.5
Alabama	106.7	18.6	88.1
Alaska	159.2	104.1	155.1
Arizona	100.6	96.1	4.5
Arkansas	55.0	12.1	42.9
California	75.9	61.4	14.5
Colorado	95.5	30.3	65.2
Connecticut	74.9	109.6	-34.7
Delaware	82.4	136.1	53.7
Dist. of C.	123.5	17.5	6.0
Florida	75.9	60.6	15.3
Georgia	65.6	32.8	32.8
Hawaii	71.4	134.1	62.7
Idaho	64.8	39.6	25.2
Illinois	72.0	252.8	-180.8
Indiana	77.4	67.3	10.1
Iowa	49.1	64.5	15.4
Kansas	60.8	75.9	15.1
Kentucky	23.3	55.7	-32.4
Louisiana	74.1	58.4	15.7
Maine	120.8	131.8	11.0
Maryland	89.0	5.8	83.2
Massachusetts	89.5	-14.8	104.3
Michigan	57.9	20.6	37.3
Minnesota	67.8	70.7	2.9
Mississippi	31.8	7.1	24.7

[1] For a full understanding of this table it is important that the preceding narrative and tables be examined carefully.

TABLE 110 Cont'd

States	Percent of Increase in Federal Expenditures FY '66-'71	Percent of Increase in Total Vocational Education Enrollment FY '66-'71	Percentage Points of Increase in Expenditures in Excess of Percentage Points of Increase in Enrollment
Missouri	70.0	52.2	17.8
Montana	96.8	89.9	6.9
Nebraska	55.7	29.7	2.6
Nevada	59.9	21.3	38.6
New Hampshire	89.2	165.0	75.8
New Jersey	84.3	261.4	-177.1
New Mexico	99.8	138.0	-38.2
New York	75.4	34.9	40.5
N. Carolina	52.4	61.0	-8.6
N. Dakota	44.9	22.6	22.3
Ohio	89.7	86.9	2.8
Oklahoma	55.1	32.6	22.5
Oregon	84.1	101.8	17.7
Pennsylvania	54.8	71.5	16.7
Rhode Isl.	9.3	128.5	119.2
S. Carolina	63.4	-26.3	89.7
S. Dakota	66.9	28.3	38.6
Tennessee	38.2	21.2	17.0
Texas	49.8	14.7	35.1
Utah	82.5	88.9	6.3
Vermont	106.2	-17.0	123.2
Virginia	74.0	54.5	19.5
Washington	100.9	38.1	62.8
W. Virginia	43.0	20.1	22.9
Wisconsin	62.8	5.6	57.2
Wyoming	65.8	75.9	10.1
Guam	308.3	127.4	180.9
Puerto Rico	70.5	34.1	47.4
Virgin Isl.	151.5	-12.8	164.3
Am. Samoa	NA	NA	NA
Pac. Tr. Terr.	NA	NA	NA

Source: Table 109.

a number of studies, usually limited to local schools only.[1] But in these scattered attempts to penetrate an almost completely obscure body of knowledge, the results are so meager as to be of almost no help now. Most of these studies are cost benefit rather than cost efficiency, which deal with the extent to which vocational education and manpower training lead to benefits greater in monetary value than their cost. Cost efficiency analysis deals with the extent to which programs are operated economically and well at the same time.

The principal difficulty in both kinds of analysis is lack of data. There is no agreement even on the kinds of data required, a discussion that seems to go on indefinitely with little progress toward an acceptable basis for standardization and comparability. Certainly a meaningful study of either costs related to benefits or costs related to efficiency can be performed only if "appropriate production and cost functions can be defined."[2] Dr. Jacob Kaufman, one of the leading authorities in this field, has developed a theoretical base for defining costs and benefits, but considerable difficulty seems to prevent development of satisfactory implementation. It may constitute an important step, however, toward the kinds of analyses needed.

The total cost of education is defined as the sum of the demand and supply costs of education; demand costs are those incurred by the individual in connection with his demand for education and supply costs are those incurred by the community and society in connection with supplying education. Within this definition Dr. Kaufman points out several general obstacles that stand in the way of specifying precise costs and benefits to be considered. In the area of demand costs, for example, the matter of maintenance costs to the student, i.e. food, housing, clothing, etc., must be settled. Also, the cost of foregone earnings must be defined and assigned as a cost to the student, the community or society. In the area of supply costs a major problem exists, relative to the cost of unemployment resulting from reduced marginal productivity of labor as labor supply is increased by training programs. While these kinds of obstacles are not insurmountable they do represent problems that must be overcome if "appropriate" costs for use in analysis are to be defined.

Problems related to costs have one characteristic which makes them far more susceptible to solution than do those related to benefits -- they can be measured on a single monetary scale. Thus selection of "appropriate" costs can take place within one dimension. Selection of "appropriate" benefits for use in analysis, however, must take place in a multi-dimensional context, because the functions of education or training can not be evaluated with a single measure or index. Without a single objective index of the benefits of education, analysts are forced to employ the approximate measures of earnings and employment. Not only does the use of an approximate measure create a good many credibility problems, it also leads to many problems of the same nature as those hindering selection of "appropriate" costs.

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[1] Steve L. Barsby, Cost-Benefit Analysis and Manpower Programs, University of Arizona, Lexington Books, D.C. Heath and Company, Lexington, Mass. 1972.

[2] Jacob J. Kaufman, A Cost-Effectiveness Study of Vocational Education, Pennsylvania State University, March, 1969, p. 22.

Over-all, cost/efficiency and cost/benefit analysis can be said to suffer from two basic problems that impede application in education and training. First, no set of "appropriate" costs and benefits has been generally accepted by researchers and educators which would satisfy all involved. Second, traditional bookkeeping systems used by educational and training institutions do not make hard data on "appropriate" costs and benefits readily available.

Chapter VIII

NEW DEVELOPMENTS IN VOCATIONAL EDUCATION

Throughout much of the decade of the 1960s and into the 1970s considerable skepticism prevailed as to whether the mandate for change in vocational education written into the Federal legislation of 1963 and 1968 was actually being carried out. The U.S. Senate Committee on Labor and Public Welfare, in reporting the Vocational Education Amendments of 1968, observed, "The capacity of traditional vocational programs to cope with these facts of life is doubted by many educators. Some have suggested that vocational education no longer has a reason for being. The committee disagrees ... The committee believes that the Nation's educators can bring about the changes in vocational and technical education which will make those programs fill what seems to be a void in the future of our educational system."

There are still to be heard occasionally the questions raised quite often for a number of years, but most of the doubts seem to be passing. The observations that more students are being enrolled but in the same old courses taught the same way they were fifty years ago, or that shop equipment in the school is so obsolete that students have to be retrained when they go on a job, or that vocational education is still largely vocational agriculture and home economics with the implication that these, too, are still nineteenth century small farm programs, or that high school industrial arts still consists largely of building footstools and birdhouses, are not being heard nearly as often as they were only two or three years ago. A general awareness that change is indeed taking place -- even sweeping changes in some instances, as in the new developments in career education -- is replacing earlier skepticism. Yet much of the nature of the changes being made is not generally known.

The Act of 1963 contained two provisions through which Congress expected vocational education to be largely overhauled and redirected to meet the needs of today's students for employment and the requirements of modern technology for trained workers. Those were Parts C and D of the Act, the provisions for research and innovation. Part C provided that ten percent of the basic grants to the States for vocational education would be used by the Commissioner for research, and in the Amendments of 1968 half of these research funds were to go directly to the States. Part D provided additional funds to be used expressly for exemplary programs, and again half of the appropriation for this purpose would be used by the States themselves and half of it by the Commissioner.

After an initial period of following these provisions, during which time preparations for a strong, on-going program in research and innovation were made both nationally and in the States, support at the Federal level became inconsistent and somewhat indifferent. Both Congress and the Administration have repeatedly scaled down the budget provision for research until the Administration's request one year amounted to only one-half of one percent of the grants to the States instead of ten percent. Only once since 1966 has the full ten percent been provided, and then only the half going to the States was spent. In 1969 the Division of Comprehensive and Vocational Research in the U.S. Office of Education, which had established the foundation of a vocational education research program nationally and in each of the States, was abolished.

In spite of these handicaps, research and innovation have been supported and have produced results. The full impact on vocational education is difficult to assess, and will be treated in more detail in a special report by Project Baseline at a later date. Even to identify the number, location, and principal features of exemplary programs is a sizeable task. Fortunately, the U.S. Office of Education has excellent records of the programs established through direct Federal assistance. Project Baseline has attempted to identify all of the programs in each State which are considered either by the U.S. Office of Education or by the States themselves as exemplary, innovative, unique, or otherwise outstanding. The list is incomplete, but it does give a cross section of the changes and innovations in vocational education which are now underway.

Table lii lists 652 as the total number of these programs for which sufficient data for identification were available. The programs are listed by major purpose. In some cases they involve an entire school district, in some cases only a single class. Their importance lies not so much in the numbers of students currently involved as in the impact they may have on educational change. Not all of these programs represent dramatic or sweeping developments; many of them are only modifications of long established practice and program content. They do have one thing in common, however: They each contain elements which the local schools -- and in most cases State and Federal agencies -- believe are better than what existed previously. They are the showcases of modernization, improvement, advancement, and updating vocational education all over the country.

Career education heads the list in the number of outstanding programs nationally, as might be expected with the emphasis it has received from Commissioner Marland and others. It is also a broad designation which may include a variety of specific concepts and program developments. It should be noted that while career education makes up nearly one-third of these programs nationally, this is primarily because of the heavy concentration on this development in a few States, notably Minnesota, Ohio, Texas, and Washington. Every State has at least one career education program.

Next in the list of innovative and outstanding programs are those designed to meet the special needs of disadvantaged persons (104), followed by programs in specific service (occupationally oriented) areas (88). Programs for the handicapped (72), curriculum development (44),

TABLE 111

Innovative, Exceptional, and Exemplary Vocational Education Programs
Categorized by Purpose, 1970-71

States	Career Education Programs	Disadvantaged Programs	Handicapped Programs	Curriculum Development Programs	Guidance & Counseling Programs	Placement Programs	Teacher Education Programs	Dropout Prevention Programs	Programmed Instruction Programs	Cooperative Education Programs	Bilingual Programs	Articulated Programs	Programs in Specific Service Areas	Other Programs	Total
U.S. TOTAL	202	104	72	44	52	6	6	21	5	12	3	5	88	32	652
Alabama	2	3	2												7
Alaska	3		1		3	1									8
Arizona	1	3	2	2	1					1			1		11
Arkansas	1	2	1										1		5
California	3	4	1	5	2		1			1	2				19
Colorado	2	2	1	2											7
Connecticut	3	4	1										1		9
Delaware	5	1	1		1								2		10
Dist. of C.	2		2				1								5
Florida	3	1	2	1									1		8
Georgia	5	1	1										1		8
Hawaii	1	2	1		1										5
Idaho	1	2	1	4						1			2		11
Illinois	2	1	1		1							1	4	1	11
Indiana	2	2	1		1										6
Iowa	2	1	1	1	2								8		15
Kansas	3	1	1												5
Kentucky	3	2	1	1	1					1			3		12
Louisiana	1	1											2		4
Maine	1	4	2											1	8

TABLE 111 Cont'd

States	Career Education Programs	Disadvantaged Programs	Handicapped Programs	Curriculum Development Programs	Guidance & Counseling Programs	Placement Programs	Teacher Education Programs	Dropout Prevention Programs	Programmed Instruction Programs	Cooperative Education Programs	Bilingual Programs	Articulated Programs	Programs in Specific Service Areas	Other Programs	Total
Maryland	3	1	1	1	2		1	2						1	12
Massachusetts	4	2	5	1				1							13
Michigan	5	3	1		3								2	2	16
Minnesota	11	1	1											1	14
Mississippi	2	1	1	1											5
Missouri	2	3	2			1			1				4		13
Montana	3	1	1	1	1								1		8
Nebraska	2	2	1		2		1	1					4		13
Nevada	1	1	1		1								1	1	6
New Hampshire	3	2	2	1	1								3		12
New Jersey	4	1	1												6
New Mexico	2	1	1		3								14	1	22
New York	4	3	4	3	1								5	2	22
N. Carolina	6	3	1	4	3	1	1	2		1		2	2	5	31
N. Dakota	4	2	1	4				1	1	2			3		18
Ohio	15	1	1												17
Oklahoma	6	3	1	2						1			3	4	20
Oregon	8	3	1	6	3							1	1	2	25
Pennsylvania	2	1	1		9									1	14
Rhode Island	2	4	2										3		11
S. Carolina	3	1	1			1		7					1		14
S. Dakota	3	1	1												5
Tennessee	2	3	3	1										1	10
Texas	23		1				1				1		1	1	28
Utah	1	1	1										1		4

TABLE 111 Cont'd

States	Career Education Programs	Disadvantaged Programs	Handicapped Programs	Curriculum Development Programs	Guidance & Counseling Programs	Placement Programs	Teacher Education Programs	Dropout Prevention Programs	Programmed Instruction Programs	Cooperative Education Programs	Bilingual Programs	Articulated Programs	Programs in Specific Service Areas	Other Programs	Total
Vermont	1	1	2					1					7	1	13
Virginia	5	11	1	1	3			4		4			3	1	33
Washington	10	1	1		3	1									16
W. Virginia	3	4	4											1	12
Wisconsin	4	2	1	3	2			2	3			1	1	5	24
Wyoming	5	1	1												7
Guam	1														1
Puerto Rico	3	2	1	1									2		9
Virgin Isl.	1														1
Am. Samoa	1														1
Pac. Tr. Terr.	1			1											2

Source: U.S. Office of Education Form 3140, "Annual Descriptive Report," (all States), U.S. Department of Health, Education & Welfare, Washington, D.C., FY 1971.
RCU Quarterly Reports (all States).
Project Baseline field researcher's notes.
Miscellaneous Documents collected by field researchers.
State administered exemplary projects in vocational education, supported under Section 142D of Part D, Public Law 90576, Bureau of Adult Vocational-Technical Education, 1971.
State administered exemplary projects in vocational education, supported under Section 142C of Part D, Public Law 90576, Bureau of Adult Vocational-Technical Education, October, 1971.
Solicited responses to questions on career education from vocational education agencies.

and guidance and counseling programs (52) are also prominent in nearly all States. Categories with the fewest programs are bilingual (3), programmed instruction (5), articulated programs (5), placement (6), and teacher education (6).

Exemplary Programs

The specific programs supported by Federal vocational education Part D funds are those identified as "exemplary" in this report. It is a technical or legal designation rather than a generic one, and there are two types: Those established under Part D grants from the Commissioner with approval by the State Director of Vocational Education in each case, and those established under Part D grants from the State agency designated to administer these funds. Both types have as their basic purpose the stimulation through Federal financial support, and the development of new ways to create, "a bridge between school and earning a living for young people, who are still in school, who have left school either by graduation or by dropping out, or who are in post-secondary programs of vocational preparation, and to promote cooperation between public education and manpower agencies."

State Administered Part D Exemplary Programs. Exemplary programs administered by the States have been characterized by the Bureau of Adult, Vocational, and Technical Education (USOE) as "diverse and targeted." These programs, in other words, are designed to deal with a wide variety of problem areas and are targeted on specific problems to which the States have assigned their highest priority. For purposes of identification these priorities have been arranged in fourteen general areas.

Programs are listed within each area alphabetically by state, and in each case the descriptive title is given as well as the amount of Federal funds involved, and occasionally additional identification is included.

1. Career Education Programs - The projects listed under this category have two or more of the following features in common: They attempt to provide coordinated educational opportunities along the entire age continuum from early childhood through adulthood; they attempt to provide vertical articulation through grade levels in this continuum; they attempt to transcend the traditional subject areas through refocusing upon a career development theme; they attempt to facilitate student movement toward self-established career goals through emphasis on guidance-counseling and placement activities.[1]

(Note: The list of programs, which follows at this point in the original report has been omitted in this publication because of its length.

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[1] Much of this definition was paraphrased from Robert M. Worthington, Associate U.S. Commissioner of Education, BAVTE, "Development of Model Career Education Programs under Part C and Part D of the Vocational Education Amendments of 1968," June, 1972.

It is available in duplicated form and will be sent to anyone requesting a copy from Project Baseline, 6502 N. 35th Ave., Phoenix, Arizona, 85017)

Although quantitative data in career education are totally lacking at this time on a uniform basis of measurement, a purely exploratory inquiry has been made to find out what the States themselves consider to be the number of students in 1970-71 who received career education in some form. Table 112 contains the results of this inquiry. The States which responded are not themselves identified in the Table because of the extreme uncertainty of the data asked for and received and because unwarranted conclusions might be made in particular instances. State agencies were asked to make estimates or provide data based on their own definitions of career education, and the variations shown in Table 112 undoubtedly reflect wide differences in definition as well as in program development. One State, for example reported nearly 700,000 students in career education while several said they had none.

The total number of students receiving career education as shown in Table 112 must be assumed to be only a portion of the actual number even by the States' own definitions. No replies were received from nineteen States, and seven others reported programs but no information available on enrollments. No attempt, therefore, will be made even to speculate on the extent to which career education, by any definition, had been implemented in the Nation's schools by 1970-71. It is evident, however, that implementation is underway, and Project Baseline will attempt to provide more complete data for 1971-72 as a base from which to measure the annual change from that point on.

Trends

Innovation and change in vocational education, as reflected in the showcase programs in every State, seem predominately concerned with career education. Two hundred four out of 411 exemplary, unique, and outstanding programs are in this category. With the current emphasis on career education in the U.S. Office of Education, it is not surprising to find most Part D Exemplary projects involved with career education. There are 133 of these, but when they are accounted for, there are still 96 more initiated by State and local administrators also involved with career education. Moreover, one-fourth of the curriculum development projects identified in 1970-71 dealt with the integration of vocational and academic curricula, a basic concept in career education.

There are probably three important reasons for the major direction of change and innovation being focused on career education. One of these undoubtedly is U.S. Commissioner Marland's interest. The U.S. Office of Education is in a position to direct the flow of half of the Part D Exemplary funds and has a strong influence on the rest. In 1971-1972 the Commissioner's influence will be even more pronounced in expanding innovative programs in career education. In Fiscal year 1971 he turned back to the States $9 million in Part C research funds, the Commissioner's half of an $18 million appropriation for Part C, for the express purpose of supporting additional programs in career education in each of the States.

The second reason for a career education thrust in new and innovative programs is the legislation of 1963 and 1968. The House Report in 1963 made it very clear that the dichotomy between vocational education and academic education must end. The career ladder concept with education and work experience built upon each other and a spiraling curriculum with each higher level of education advancing students to a higher level of employment were spelled out in the House Report. While it is not to be expected that many educators read the House and Senate Reports of 1963 and 1968, the legislation which was passed reflected the intent of Congress as expressed in the reports. The Part D Exemplary program, for example, was a new kind of Federal support written into the Vocational Education Act of 1963 so that the results of research and new concepts could be put into practice in local schools; both research and the preponderance of new concepts coming out of the 1963 legislation could be identified in one way or another with what is now called career education.

TABLE 112

Estimated Career Education
Enrollment, 1970-71

State	Enrollment	State	Enrollment
A	300	M	282
B	9,000	N	0
C	13,082	O	1,180
D	11,571	P	23,502
E	1,300	Q	1,754
F	686,664	R	0
G	7,519	S	5,280
H	9,074	T	16,074
I	5,000	U	4,807
J	8,000	V	2,218
K	8,640	W	2,090
L	3,500	X	11,395

Source: Individual State Data submitted to Project Baseline by the States.

Finally, one of the most pressing needs for change in a large number of local schools throughout the United States has, in recent years, come to be a new alignment of educational content and priorities. In lower economic areas, both urban and rural, an education largely oriented toward academic subjects and college preparation was experiencing as much success in alienating students and driving them out of school as in providing them with a useful foundation for their lives. In middle income areas the goal of a college education served to support an academic curriculum long after both experience and statistical evidence demonstrated that only about one-fifth of the population actually completed college and needed this kind of an education. In upper economic areas where the great majority of families were in business and the professions, and a largely academic education was necessary, many of the children of these families were not themselves suited either for college work or careers based on college programs; a strictly academic education left them as unprepared for constructive lives as it did similar students in less affluent school districts.

Administrators and teachers in schools at every socio-economic level throughout the Nation, who have faced the problems of discipline, drugs, social rebellion, the generation gap, and violence, have felt that an educational program better adapted to the needs of all students must be developed. And in more schools than it has been possible to identify, either by State or Federal agencies, actual career education programs have been designed and put into operation.

Chapter IX

RESEARCH AND CHANGE IN VOCATIONAL EDUCATION

Few if any of the new developments listed in the previous chapter came into existence without research, and specifically research supported by Federal funds under Part C of the Vocational Education Act of 1963. One of the conditions laid down by the Commissioner for approval of Part D exemplary projects is that they must be based on research. In many States the Exemplary programs are administered by or were initially established by research coordinating units supported almost entirely from Part C research funds. In numerous instances the administrators or project directors of innovative, exemplary, and outstanding programs have been selected from vocational education research personnel who have worked on previous Part C grants or participated in training programs and workshops supported by Part C funds. In any case, if recent literature on vocational research and innovation is used at all, it can usually be traced back to these same research funds. There was virtually no literature of this kind in existence before the Vocational Education Act of 1963 provided financial support for its development.

The impact of Federal research funds, however, is much more extensive and goes much deeper into the substance and methodology of vocational education than just the showcase programs singled out for special recognition. The full impact is impossible to trace. Much of it has already been diffused so widely that new approaches and new content based on research are now accepted as established practice. Much that is new, effective, and noteworthy in vocational education, on the other hand, can be traced to particular research projects supported by grants from the U.S. Office of Education or State research coordinating units, and in this chapter as much of that impact as can be traced will be identified.

Within the States, Part C research funds have been used since 1965 to support vocational education development, coordination, and dissemination through research coordinating units. From the activities of these agencies have come virtually all of the data systems through which accountability has been advanced, much of the experimental and innovative work at the State and local levels, and dissemination within each State of the development of new programs, new concepts, and new methods from every other State. For Fiscal year 1972 Congress appropriated only $18,000,000 for research under Part C, less than half of the amount which would have been available if provisions of existing legislation had been followed. Since an additional $18,000,000 had also been appropriated for vocational research under the Cooperative Educational Research authority, Commissioner Marland allowed the entire Part C apporpriation to go to the States; but only half of it was available for research. The remaining $9,000,000 was used for exemplary programs. Under these circumstances two choices were possible: take money from other equally necessary programs and direct it into research; or cut back on research activities until adequate funds were available again. Most States were forced to accept the second alternative, and a number of promising efforts were reduced to holding actions or eliminated altogether. The activities which remained are shown here as the cutting edge of new developments in vocational education in the years ahead.

Table 113 gives a breakdown of vocational research for 1970-71 into nine categories. Nationally, the greatest emphasis was on planning and evaluation systems, which includes most efforts to improve accountability in vocational education. Only eight States — Idaho, Illinois, Kansas, Maryland, Montana, South Dakota, Vermont, and Wyoming had no research projects which were identified in this category. California had nineteen, Utah fourteen, and North Carolina, Oklahoma, and Pennsylvania ten each. If even a portion of these research projects lead to better planning and evaluation systems, and therefore greater accountability, vocational eeucation will show noticeable improvement in efficiency and effectiveness in the years immediately ahead.

The second category of major emphasis in research was curriculum and administrative systems. Since this includes career education research and development at all levels above elementary, most of the activity here was probably in that direction. It should be noted that that the absence of research projects in this category does not mean the absence of career education development, since exemplary funds were also concentrated heavily in this area. States with a number of curriculum and administrative systems research projects, however, may be moving rather more aggressively into the first stage of such development — the research stage — than States with few or more. This would include New Mexico with twenty-two projects, Oklahoma with twenty, Oregon with fourteen, Washington with twelve, Pennsylvania with eleven and Arkansas with ten.

Having made these observations, it is necessary to point out that the number of research projects alone has little meaning other than the extent to which research funds are being dispersed. It is quite possible and often true that a single research project in which substantial funds are invested will produce much more in the way of results and therefore impact on vocational education than many smaller projects. On the other hand, so-called "mini-grants" of the kind supported by New Mexico have been known to produce results and mmpact far out of proportion to the amounts of money involved because of the much wider direct impact they have on local schools and often the greater number of vocational education teachers and administrators who are involved.

State Research and Development Activities

The major vocational education research and development effort in most States is supported through Section 131 (b), Part C, of the 1968 Amendments to the Vocational Education Act of 1963. This section provides funds which support two types of research and development activities: seventy-five percent of the cost of operating State Research Coordinating Units, part of which includes specific research and development projects, and projects in a variety of other agencies, organizations and institutions

TABLE 113

Vocational Education Research and Development Projects Classified in Nine Areas, 1970-71

States	Curriculum Administrative Systems	Redesign of Occupational Programs	Enrollment and Followup Systems	Research Information Systems	Research Attitudes	Vocational Education Attitudes	Planning and Evaluation Systems	Career Counseling	Pre-Vocational and Career Related Education
U.S. TOTAL	176	34	31	19	2	17	194	36	15
Alabama	2			2			2		
Alaska							2		
Arizona		1	1	1		1	2		
Arkansas	10		3	2			3		
California	2	2	3			1	19	4	
Colorado	5	1	1			2	4	1	
Connecticut			2				3		
Delaware	3						2		
Dist. of C.			1				1	1	
Florida	4			1	1		7		6
Georgia		4					1	3	3
Hawaii			1				1	1	
Idaho									
Illinois	3	1	1						
Indiana	4	2				5	6	2	
Iowa			2				2		
Kansas									
Kentucky				2			2	2	
Louisiana				1			1		
Maine							2	1	

TABLE 113 Cont'd

States	Curriculum Administrative Systems	Redesign of Occupational Programs	Enrollment and Followup Systems	Research Information Systems	Research Attitudes	Vocational Education Attitudes	Planning and Evaluation Systems	Career Counseling	Pre-Vocational and Career Related Education
Maryland	2								
Massachusetts	5	1		1			2		
Michigan							3	1	
Minnesota	3			1			5	1	
Mississippi	4	1				1	3		
Missouri							2	1	1
Montana		1	2						
Nebraska	2					1	6		
Nevada	2						4		
New Hamp.	1		1				2		
New Jersey	3						5		
New Mexico	22					2	5	2	
New York	5						3		
N. Carolina	5	2	1				10	3	1
N. Dakota	2		1	1			3		
Ohio	2		1				3		1
Oklahoma	20	5	1			3	10	1	
Oregon	14						1	1	
Pennsylvania	11	5	1	1	1		10	2	
Rhode Island			1				1		
S. Carolina				2			3	1	
S. Dakota									
Tennessee	3	1	1	1		1	8		
Texas	8	1		1			4		1
Utah	8		1				14		

TABLE 113 Cont'd

States	Curriculum Administrative Systems	Redesign of Occupational Programs	Enrollment and Followup Systems	Research Information Systems	Research Attitudes	Vocational Education Attitudes	Planning and Evaluation Systems	Career Counseling	Pre-Vocational and Career Related Education
Vermont			1						
Virginia	3			1			3		
Washington	12	3	1	1			9	7	
W. Virginia	3	3					2		
Wisconsin	2						7	1	
Wyoming									
Guam									
Puerto Rico	1		3				2		
Virgin Isl.									
Am. Samoa									
Pac. Tr. Terr.									

*Source: U.S. Office of Education Form 3140, "Annual Descriptive Report," (all States), U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.
RCU Quarterly Reports (all States).
Project Baseline field researcher's notes.
Miscellaneous Documents collected by field researchers.
Vocational education research activities supported by NCERD, FY 1969-71, P.L. 88-210 (Part 4) (C) and P.L. 90-576 (Sect. 131) (A).

recommended by the research coordinating unit (RCU) or the state advisory council.

Three general categories of activities may be carried on: (1) research and training projects, (2) experimental, developmental or pilot projects designed to meet the special education needs of disadvantaged students, and (3) projects and activities designed to disseminate research information. Table 114 lists all Part C funds spent in 1970-71 for these three purposes divided into RCU and grant expenditures with the percent for each.

Table 114 shows the general distribution of Part C research funds nationally and within each State which by law went to the States for local and State research. Since it is completely by each State's own judgement what part of their Federal research allocation is used to support a research coordinating unit and what part is used for grants, a great deal of fluctuation occurs. The national average is approximately twenty-five percent for RCU's and seventy-five percent for grants. Twelve States used their Part C allocation for grants: Alaska, Idaho, Indiana, Iowa, Kansas, Maine, Oregon, Rhode Island, South Dakota, Texas, Virginia and Washington. In some of these States, i.e. Oregon, Texas and Washington, a reasearch coordinating unit was supported entirely from State funds. In other cases, i.e. Kansas, Maine, Rhode Island, and South Dakota, the States have no research coordinating units.

Seven other States elected to use their entire Part C allocation to support their RCU's, and these agencies in turn either conducted all of the Federally supported research activities in-house or administered a grant program of their own. This includes the District of Columbia, Louisiana, Mississippi, Montana, Nevada, North Carolina, and South Carolina.

Nationally, approximately one-fourth of the Federal research funds going to the States in 1970-71 were used to support the State RCU's and three-fourths for grants. The division also fluctuates widely among individual States. Eight States used over $100,000 of their allocation for RCU support and one of these, New York, used over $200,000. The average for all States using research funds for this purpose was slightly over $50,000. In two States, Hawaii and New Hampshire, both of which have strong RCU's supported by State funds, Federal Part C funds were used for token support only.

(Note: The list of programs, which follows at this point in the original report has been omitted in this publication because of its length. It is available in duplicated form and will be sent to anyone requesting a copy from Project Baseline, 6502 N. 35th Avenue, Phoenix, Arizona, 85017).

TABLE 114

State Administered Part C Research and Development Expenditures by Purpose, 1970-71

States	Total Federal Part C Expenditures	Federal Part C Expenditures for RCU's	Percent of Federal Part C Expenditures	Federal Part C Expenditures for Programs and Grants	Percent of Federal Part C Expenditures
U.S. TOTAL	$8,793,932	$2,072,637	23.6	$6,721,295	76.4
Alabama	209,718	100,448	47.9	109,270	52.1
Alaska	6,000	-	-	6,000	100.0
Arizona	132,968	130,365	98.0	2,603	2.0
Arkansas	54,288	21,414	39.4	32,874	60.6
California	568,638	125,000	22.0	443,638	78.0
Colorado	99,270	10,087	10.2	89,183	89.8
Connecticut	36,850	18,984	51.5	17,866	48.5
Delaware	31,200	14,960	47.9	16,240	52.1
Dist. of C.	7,292	7,292	100.0	-	-
Florida	504,274	17,305	3.4	486,969	96.6
Georgia	32,285	9,882	30.6	22,403	69.4
Hawaii	9,959	628	6.3	9,331	93.7
Idaho	8,666	-	-	8,666	100.0
Illinois	744,272	49,149	6.6	695,123	93.4
Indiana	432,978	-	-	431,978	100.0
Iowa	15,000	-	-	15,000	100.0
Kansas	5,780	-	-	5,780	100.0
Kentucky	129,125	99,377	77.0	29,748	23.0
Louisiana	32,273	32,273	100.0	-	-
Maine	14,333	-	-	14,333	100.0
Maryland	256,856	34,032	13.2	222,824	86.8
Mass.	125,739	58,611	46.6	68,128	53.4
Michigan	699,817	47,040	6.7	652,777	93.3
Minnesota	222,068	97,558	43.9	124,510	56.1
Mississippi	15,000	15,000	100.0	-	-

TABLE 114 Cont'd

States	Total Federal Part C Expenditures	Federal Part C Expenditures for RCU's	Percent of Federal Part C Expenditures	Federal Part C Expenditures for Programs and Grants	Percent of Federal Part C Expenditures
Missouri	269,314	31,140	11.6	238,174	88.4
Montana	15,000	15,000	100.0	-	-
Nebraska	118,945	15,000	12.6	103,945	87.4
Nevada	24,482	24,482	100.0	-	-
New Hamp.	13,303	526	4.0	12,777	96.0
New Jersey	348,473	144,484	41.5	203,989	58.5
New Mexico	107,026	45,010	42.1	62,016	57.9
New York	451,596	229,481	50.8	222,115	49.2
N. Carolina	42,029	42,029	100.0	-	-
N. Dakota	17,000	7,378	43.4	9,622	56.6
Ohio	849,109	123,797	14.6	725,312	85.4
Oklahoma	156,987	112,662	71.8	44,325[1]	28.2
Oregon	148,002	-	-	148,002	100.0
Penn.	592,552	124,954	21.1	467,598	78.9
Rhode Isl.	115,041	-	-	115,041	100.0
S. Carolina	38,044	38,044	100.0	-	-
S. Dakota	69,550	-	-	69,550	100.0
Tennessee	55,433	42,611	76.9	12,822	23.1
Texas	203,762	-	-	203,762	100.0
Utah	111,996	55,000	49.1	56,996	50.9
Vermont	41,804	2,165	5.2	39,639	94.8
Virginia	87,325	-	-	87,325	100.0
Washington	48,727	-	-	48,727	100.0
W. Virginia	37,346	34,596	92.6	2,750	7.4
Wisconsin	215,351	19,700	9.1	195,651	90.9
Wyoming	24,750	20,000	80.8	4,750	19.2
Guam	14,802	-	-	14,802	100.0
Puerto Rico	166,534	55,173	33.1	111,361	66.9
Virgin Isl.	15,000	-	-	15,000	100.0

[1] Figure does not represent programs under development during FY 1971 and not operational until FY 1972. William D. Frazier, Director, RCU, Oklahoma State Department of Education, October 12, 1972.

Source: U.S. Office of Education Form 3131, U.S. Department of Health, Education, & Welfare, Washington, D.C., FY 1971.

Chapter X

STRENGTHS AND WEAKNESSES OF VOCATIONAL EDUCATION AND MANPOWER TRAINING

The preceding data and analyses give as much of the picture of vocational education and manpower training in the first baseline year of this study as has been possible to present. There are numerous gaps and parts that are indistinct; hopefully these will be filled in more completely in subsequent years. The picture is sufficiently clear, however, to suggest areas in which these programs are functioning well and other areas where problems exist. The strengths have been identified for the most part in Chapter I as significant findings, and some additional observations which indicate satisfactory performance will be made in this chapter. Most of the following observations, however, are critical. They are not intended to be negative, and in every instance will be followed in the next chapter with recommendations for improvement.

Duplication and Overlapping

A question that has plagued Congress and the general public for several years is whether the proliferation of vocational education and manpower training programs during the 1960s has resulted in an efficient or chaotic delivery system of trained manpower for the employment market. From data available, there can be no doubt that costly duplication of effort and resources exists. The great majority of programs are located in urban and metropolitan areas, and the persons intended to benefit from each of the manpower programs administered through the U.S. Department of Labor are also being served by vocational education administered through the U.S. Department of Health, Education, and Welfare. Vocational education enrolls ninety-three percent of all trainees in vocational education and manpower programs combined.

Coordination and cooperation do exist, however, and are probably more extensive than available data show. The outstanding example is in the MDTA programs which include one-fourth of all manpower trainees. MDTA is administered jointly by the U.S. Department of Labor and the U.S. Department of Health, Education, and Welfare. Official documents and observations in the States would seem to indicate that the cooperation and coordination established by law is working well in some States. Efforts to coordinate their objectives, target populations, resources, and planning have been carried on for several years first by CAMPS Committees and later by State manpower agencies and committees under the direction of the Governors. In discussing the situation with these individuals it appears that in most States, if not all, these efforts have been particularly successful.

The basic problem in the States seems to be in a wide dispersion of responsibility for EOA training programs. Several are administered by community action organizations. None of them are legally responsible to a State agency that also has legal responsibility for vocational education and the actual training in MDTA programs. Whether this results in duplication of training or re-training the same persons is not known, but that is possible, and if so, would be wasteful.[1] It almost certainly duplicates training opportunities, but this may not be a serious problem except where well equipped facilities and instructional personnel are not being fully utilized.

Duplication and overlapping on the whole are minor when considering the numbers of persons being prepared, but there is a problem of major proportions in the duplication of resources. Vocational education so completely dominates publicly supported manpower training that little more than local pockets of duplication are possible. Yet for every Federal dollar per trainee spent on manpower programs, vocational education programs receive only two cents of Federal support per student. This ratio of 50-to-1 is hard to justify. There is considerable evidence that lack of adequate financial resources is the major deterrent in providing vocational education for every youth and adult who needs to be trained or retrained. Statistical data available seems to indicate that Federal expenditures for vocational education result in more persons trained than in manpower programs administered through the U.S. Department of Labor. This disparity to a considerable degree is due to the emergency or "crash" nature of the manpower programs as contrasted with the more established role of the vocational education programs.

The most glaring lack of coordination in this entire picture is in the welfare provisions of most manpower programs, especially those established under the Economic Opportunity Act. All other Federal welfare programs are administered through the U.S. Department of Health, Education, and Welfare. Admittedly this newer approach to welfare through training for employment reflects widespread dissatisfaction with both the programs in operation and the way they have been administered. But when training programs containing welfare provisions are administered by an entirely different Federal department, different State agencies, and in most cases different local agencies, it can hardly help but add to the complex problems that already exist. If welfare and job preparation must be combined, and there are good reasons for this being done, it would seem almost imperative that they should either be administered by the same agencies or coordinated by law.

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[1] According to first hand reports from personnel in some of the State agencies, such duplication not only exists but forms the basis of a certain number of "professional" trainees who go from one program to another for the sole purpose of receiving the support benefits while in training. No documentation is available to substantiate these reports, but it could easily be found since all trainees are registered under their social security numbers.

Misdirection of Federal Funds

In 1970-71 the Federal Government sought to carry out the Congressional intent of "training or retraining persons whose skills had become obsolete and opening to everyone the opportunity for education, training, and work" by spending $509 million training three hundred thousand persons in Economic Opportunity Act programs. Another $335 million was spent training five hundred thousand persons in MDTA programs. And $393 million was spent training nine million persons in vocational education programs.

It is true that the EOA and MDTA programs were designed to reach persons who required much more assistance than most students in vocational education. It is also true that many of those trained in EOA and MDTA programs probably could not be reached by established vocational education programs. Nevertheless -- with an unemployment rate as high as 6.1 percent in 1970-71, 16.9 percent for youths between the ages of 16 and 19 and ten percent for young adults between the ages of 20 and 24 -- when only a little more than one-third of the Nation's high school students were receiving any kind of Federally reported vocational education, a serious question may be raised about the judgment in this allocation of Federal resources.[1]

It is a question of particular importance at the present time because of the Government's efforts to hold down Federal spending. When funds are used to train individuals at a cost forty-four times as much in one program as in another, and twice as much money is appropriated for the former than the latter, spending limitations would seem to call for a different approach to budgeting and appropriations. The fault does not lie with Congressional authorizations. All of these programs have higher authorizations than funds appropriated.

The only possible argument in support of such an arrangement would be that the cost-benefits are just as high or higher than if the funds were allocated differently, but no evidence has been found to support that position. Follow-up data are not being collected in any of these programs satisfactorily on a national scale, and Project Baseline was unable to obtain a single national statistical report on the employment rate of manpower completions in 1970-71. Lacking evidence entirely of favorable cost-benefit ratios, it must be assumed that they are inconclusive. This assumption is based on the obstacles in the way of success in preparing many persons in severely disadvantaged situations for permanent employment.

It may be argued also that these individuals are in such great economic and social need that the funds spent on attempting to train them for employment would have to be spent on them in the form of welfare or institutionalized care. This is a specious argument to begin with, based purely on assumptions. Even if it were true, and if this were the justification for the great imbalance in Federal support between vocational education and manpower training, it would mean that the economic objectives Congress spelled out in the vocational education and manpower training legislation of the 1960s were being replaced in the budgeting process by social objectives.

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[1] Unemployment rates are from monthly issues of Current Population Survey, published by the U.S. Bureau of Labor Statistics. The actual number of all high school students in the United States reported in secondary vocational education programs in 1970-71 was 5,157,010. There were 13,674,855 high school students altogether. The percent of high school students enrolled in vocational education as reported by the States, therefore, was 37.7 percent.

One result of this, ironically, is that the very people meant to be given employment skills under the manpower legislation are being deprived of them in the public schools. This is particularly true in hard core poverty and ghetto areas where local schools supported by an inadequate tax base cannot afford expenditures for facilities and equipment essential for the training required. It is compounded in numerous cities across the Nation where ethnic groups resist taking vocational courses because of an imagined stigma compared to academic education, or fear of being denied opportunities they have assumed are greater through an academic program. They may, however, take general business or industrial arts courses which are academically oriented, but which for them, may open up their only opportunities for future employment. The facilities and equipment in these programs in many schools are quite modern, but in far too many inner city high schools they are deplorable.

This is not the only misdirection of Federal funds in the training programs supported by legislation of the 1960s. Congress made clear in the Vocational Education Amendments of 1968 that the major part of specific training should be shifted from the secondary schools to post-secondary institutions. This is stated in both the Senate and House Reports (See Appendix A); and a minimum of fifteen percent of each State's allocation of Federal funds must be used for post-secondary programs. Most of the States are evidently complying with that provision, and a few go far beyond it in their emphasis of post-secondary training. Nationally, however, fifty-six percent of all students reported in vocational education in 1970-71 were high school students and only twelve and one-half percent were post-secondary. Sixty-three percent of the Federal funds for vocational education went into secondary programs, and only twenty-eight percent into post-secondary.

Admittedly the task of serving all secondary school students who need vocational education is very great, and a shortage of funds is one of the reasons this is not being accomplished. Almost all vocational education before the 1960s was provided in secondary schools, and it is neither feasible nor justified to reduce these programs in order to provide more at the secondary level. Additional funds are needed. Some States have moved aggressively to provide additional funds, but where this had not been done, the imbalance between secondary and post-secondary vocational education remains too high.

The Instructional Gap

It is disturbingly evident that vocational education has virtually no numerical depth in instructional personnel, particulary in occupational areas requiring much individual student/teacher interaction; and relatively little expansion is underway. According to prevailing observations, continued growth of technology and the Nation's economy will require the average person to pursue four or five occupations during a lifetime. It is estimated that at the present time the United States has the capability of retraining and upgrading two percent of its labor force annually. The capability needed is to train nine to twelve percent annually.[1] The lack of sufficient instructional personnel to train and retrain people over the age of twenty-five is the biggest gap in the capability of vocational education to carry out its mandated responsibilities.

Whether a qualitative gap exists in vocational instruction, as well as a quantitative gap, is impossible to say with the data available. There is no particular reason to believe that it does, but there is no way of knowing that it does not. In all reported data and all informal data available there is little evidence of much attention given to questions of scope, intensity, or mode of instruction. Mode of instruction includes laboratory, classroom, and work experience activities -- and how these are initiated and sustained. Data on organization, data on enrollment, and other data give nothing on instructional management. Instructional management is one of the big gaps in vocational education data and information.

There is very little accurate data on professional development -- pre-service and in-service education of vocational teachers and less for teachers in MDTA, EOA, etc. The intensity, scope, and mode of this training are virtually unknown outside of the immediate personnel involved. It is not known how professional development in education has responded to the three hundred to five hundred new areas of specialization that have developed since 1963.[2]

Finally there is another instructional gap closely related to vocational education that staggers the imagination. This is in career education. With few exceptions, neither academic nor vocational teachers are well prepared to teach in career education programs. It requires an integration of subject matter beyond the experience of the great majority of classroom teachers in the Nation. It requires not only redesigning the curriculum but restructuring entire school programs. It requires new knowledge on the part of every teacher whose professional career has been limited to one subject area or one kind of an educational program. The task of educating and re-educating classroom teachers to meet the imminent demands of career education is roughly analogous to retraining the assembly line in an automobile plant to build automobiles in a few simultaneous operations with all of the parts going together at the same time. If this has to be done while maintaining a full production schedule, it presents almost insurmountable difficulties. But if it is to be done at all, every delay will only compound the problem.

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[1] Dr. Gordon Swanson, Professor and Coordinator, School of Education, University of Minnesota. Much of the discussion in this section is based on consultations with Dr. Swanson, and several statements including this one are paraphrased from direct quotes.

[2] Dr. Swanson reports that Minnesota has had 300 new areas of specilization developed in its area technical schools in the past decade.

Vocational Education Versus Career Education

Much of the emphasis in vocational research and development recently has shifted to "career education". Virtually all of the exemplary programs financed under Part D of the Vocational Education Amendments are career education programs. U.S. Commissioner Marland turned over the entire Federal half of the vocational education research funds in Fiscal year 1971 to the States to establish exemplary programs in career education. Substantial amounts of cooperative education research funds are being used by the U.S. Office of Education to develop three basic models of career education. The National Center for Leadership and Research Development in Vocational and Technical Education at Ohio State University is developing one of the models in six full scale prototypes strategically located throughout the United States. The National Center for Occuaptional Education at North Carolina State University has made a survey in-depth of forty-one career education programs based on a list of 125 in forty-three States, and has published a book for administrators and teachers on how to go about establishing career education programs.

There can be little doubt of the leadership and resources from vocational education being put into career education, and a fairly obvious relationship seems to be taken for granted by most vocational educators. But this presents a dilemma: Either vocational education and career education are two names for the same thing; or they are two different things. If the former, career education will never be anything but vocational education; if the latter, vocational education may be creating its own replacement.

The question goes considerably deeper than semantics. Vocational education has always had certain specific goals and ideals, and if it did not have these goals and ideals and direct its efforts toward achieving them, it was not vocational education. The principle goal has been preparation for a job, usually a specific job. For this reason vocational teachers must have had experience themselves in the jobs for which they are preparing students. Other goals and ideals include development of skills which will enable the student to move up the ladder of success in a particular occupation, enhancement of prestige and importance of a particular occupational (service) field, and an esprit de corps within each group being prepared for an occupational field.

Career education has different goals. There may be disagreement about a definition, but its goals are well established. The principle goal of career education is to prepare every student for a place in the world of work. Other goals include the integration of academic and skill training programs in a school system, earlier instruction in work oriented subjects beginning in kindergarten and in the first grade, a continuum throughout the entire school program and beyond in which each stage of preparation leads to another, and the involvement of all teachers, not just those who teach job preparation courses.

In their overall purpose the objectives of vocational education and career education are not incompatible. Both lead toward the application of what has been learned in school to what has to be done in earning a living. But in many ways the two different sets of goals are not easy to fuse into a common program. Almost everything which has identified vocational education for more than fifty years would have to change, leaving only the job-oriented shop and practical experience courses as part of something larger. As long as vocational educators can direct the transition, they may feel they have nothing to worry about; but when the changeover has progressed to a point where the numerically superior academic faculty are completely involved, the cherished ideals of vocational education may be rejected or compromised.

At that point it will become clear for the first time whether career education and vocational education are really the same thing. It will also be the time when vocational educators will decide if they want career education after all. In the meantime, the two may be on a collision course.

Hopefully, this may not happen. It is generally taken for granted that career education can hardly exist without vocational education, and this is probably true. Since there is such a strong movement in the schools already underway toward career education, and its successful development depends on vocational education, an enormous amount of effort and resources will have been wasted if a conflict develops. Vocational education would then retreat into a separate program for some students, and the rest of education would continue to be largely academic, which is what all of the present efforts for something better are intended to bring to an end.

The biggest problem by far in developing a completely new combination of academic and vocational education in the classrooms, as noted earlier, is in educating the teachers; and in attempting to do this the merger of academic and vocational education may be accomplished. It presents a real challenge to the universities whose job it will have to be. It also presents a challenge to school administrators, State Departments of Education, and the U.S. Office of Education. There is some question if that challenge is fully realized and its underlying difficulities are apparent to most educators at the present time. Vocational educators in particular may be a little too complacent about the changes facing them if career education becomes a reality.

Impact on the Employment Market

One of the major concerns of Congress beginning with the Manpower Development and Training Act of 1962 and continuing through each bill establishing or expanding skill training programs in the 1960s was that they would have a significant impact on the employment market. This concern has been voiced repeatedly by State Advisory Councils, and it is a continuing concern of the National Advisory Council. It was probably this as much as anything else that led to more recent efforts in Congress to pass a manpower consolidation measure, generally opposed by vocational educators because they felt consolidation was attempting to "move the mountain to Mohammed". The employment of students and trainees is a very real concern of State Directors of Vocational Education, State manpower agencies and State employment service agencies. But rarely has so much concern about a public activity by so many agencies been sustained over so long a time with less effectual efforts made to find out what the results are that have been achieved.

Except for the effort by vocational education as required by the U.S. Office of Education, to find out how many of its former students were employed in their training fields, and sporadic "evaluations" of manpower programs -- both almost invariably undertaken with inadequate resources and forced to rely on biased data -- there are no data on employment of students and trainees after they complete their training. This is not because it could not be done. As early as 1966 the State of Washington's Research Coordinating Unit developed basic follow-up procedures under a vocational education research grant from the U.S. Office of Education. The Washington study was widely distributed, and in a number of States research coordinating units developed follow-up systems of their own based on this initial design.

At that point, much of the entire effort became one long disappointment in the States, because it coincided with a steady reduction of vocational education research funds in Federal Administration budgets and annual appropriations by Congress. The States themselves were under considerable pressure to increase their programs and enrollments, and most of them could not take program operating funds to put into a follow-up effort. There was always the immediate job to do, and what happened to the product would have to be looked into later.

Even less effort appears to have been made in learning the effectiveness of the manpower programs. Here another factor was present also. From the beginning many of the local agencies administering those programs, especially the EOA programs, put as much or more effort into the social objectives for which funds were being provided as into the training objectives. This was understandable, because the funds had a dual purpose. And under these circumstances it was not of critical importance to know what happened to the recipients in the employment market; what happened to them at the time was more important, and even this seems not to have mattered greatly after they were no longer in the program.

If adequate follow-up data were available, another problem still remains. The data must be related to employment opportunities, employment demand, and employment projections. Considerable difficulties still exist in the employment data available, in spite of a great deal of effort by the U.S. Department of Labor and State and local employment service agencies in providing what are available. Sampling techniques present the only way such data can be collected, and while these work extremely well with large populations they decline in validity and reliability when used at successively smaller units of government. Large States, for example, can gather statistical data from comparatively small samples of the population, but small States and municipalities are forced to rely on surveys of the total population or samples with high error factors.

Probably the major difficulty in collecting employment demand and projection data at some State and local levels is the absence of economic models in these areas capable of weighing all the variables which affect employment demand. Even the most sophisticated economic models using the largest capacity computers would have difficulty in making employment demand projections from a small population and employment base. This makes the task of relating vocational education and manpower training enrollments to local employment markets extremely difficult and often impossible.

Perhaps the most effective way of coordinating training with the employment market locally as well as at State and national levels would be to make statistical training enrollment data available to State employment service agencies and employees. When occupational imbalances become evident, this information could be fed back to the training agencies where efforts could then be made to adjust subsequent enrollments. This could be accomplished periodically, at least every six months and perhaps more often, with a national education data system using original enrollment data on magnetic tape relayed to a national data center through county or area, State, and regional computers.

Impact on Target Populations

The target populations toward which Federal vocational education and manpower training funds are directed are persons needed for employment by business and industry, persons who skills have become obsolete, high school students, school dropouts, post high school students, adults who need to upgrade their skills or learn new ones, students with special educational handicaps, everyone who needs the opportunity for education, training and work (See Appendix A). It would hardly be possible to reach everyone identified in the vocational education and manpower legislation of the 1960s, but for nearly one billion dollars annually there would be an impact. It is the nature of that impact as well as its extent which needs to be examined.

In vocational education in 1970-71, with nine million students enrolled, nineteen percent were Negroes; six percent were Spanish-surnamed Americans; 0.7 percent were Orientals; 0.5 percent were American Indians; the rest were largely Caucasian or European descent. States with higher ethnic concentrations of one group or another have higher percentages of that group in the vocational education programs. Data are available to show that Negroes, American Indians, and Orientals represented a higher percent of the total vocational education enrollment than of the total population. For Negroes it was eight percentage points higher; for Spanish-surnamed Americans the data were not available; for American Indians it was 0.13 percentage points higher, and for Orientals 0.19 percentage points higher.

More females were receiving vocational education than males by a ratio of five to four, chiefly because of the long-standing home economics program now called consumer and homemaking. Thirteen percent of the total vocational education enrollment were disadvantaged persons; and 1.9 percent were handicapped.

In MDTA programs thirty-two percent of the trainees were Negroes in 1970-71; 2.5 percent were American Indians; and 0.5 percent were Orientals.

In EOA programs in 1970-71 44.8 percent of the trainees were Negroes; 2.3 percent were American Indians; and 0.3 percent were Orientals. Data were not available on Spanish-surnamed Americans. Nearly thirty-eight percent of all high school students were reported to be enrolled in Federally supported vocational education programs in 1970-71. If the target here is every student, the achievement rate is more than sixty percent short. Whether those who are enrolled are the ones who need the training most cannot be determined, but indications point to an assumption that most of them are. In manpower programs the same assumption can be made.

Beyond these rather limited observations, very little can be said at the present time about the impact of Federally supported vocational education and manpower training on target populations. Critics are sometimes inclined to make judgments, i.e. that vocational education has too many agricultural students compared to other occupational groups in today's urbanized society, but it is only 8.9 percent and the heaviest concentrations are in the Southern and Great Plains States followed by most of the Midwest and the northern Rocky Mountain States. Similar judgments about manpower trainees that training for many is a waste of time and resources because they are still not employable after they are trained, or that vocational education is a dumping ground for misfits and failures in the schools, simply have no evidence on which they can be supported or denied. It is another area in which data are inadequate, unreliable, or do not exist.

Information and Credibility Gaps

This First Annual Report of Project Baseline represents the most concentrated effort it was possible to make to assemble all data and information available on the subject. It was known beforehand that these data would not be complete, and in many cases their reliability would have to be questioned. To what extent the materials available are incomplete or of doubtful accuracy must now be recognized.

First of all, proprietary school data are missing entirely, but the National Center for Educational Statistics is coming out with a report containing these, and Project Baseline will at least partially update them next year. Armed services training data for civilian employment has been explored, but little if any of real substance are available. This area will also be pursued in subsequent years by Project Baseline because supposedly the data are in armed services computers if they can be collected and analyzed.

An apparently important segment of vocational education in secondary schools is not being reported to the Federal Government, particularly those courses not eligible for Federal funding; and, although difficult problems of definition and location are involved, Project Baseline will also pursue this effort in greater depth next year. Follow-up data showing the results of both vocational education and manpower training either do not exist or are of such doubtful validity in all but a few cases that only a shadow of that picture is visible at the present time.

Cost data by occupational training area are not available except for vocational education in a few States, and even these are usually incomplete. Reliable cost data are probably several years away. In vocational education they will depend on a complete reorganization of standard cost accounting procedures in the schools. In manpower training they will depend on a system of record-keeping which identifies expenditures rather than, or at least in addition to, allocations.

Since the problems in vocational data are greater than in manpower data, if for no other reason than the nine-to-one ratio of vocational education enrollments to manpower training enrollment, these are discussed here in greater detail.

The vocational education data in Table 1 and all subsequent enrollment data tables are taken entirely from each State's Federal reporting form 3138. These are required by the U.S. Office of Education to be filled out and submitted each year. The enrollment data used by State departments to complete this Federal report are, in turn, received from local school districts or in some cases from counties or regions. At the present time there is no uniformity among States in the way vocational education enrollment data are collected. Some States simply have supervisors of the various services -- agriculture, office occupations, distributive education, etc. -- collect class totals from the schools. Some States issue copies of the Federal form to local schools or regions, and school personnel -- often counselors -- fill them in. There is a problem in either case in getting the actual number of students -- an unduplicated count -- from class totals. Many students are enrolled in more than one vocational class at the same time. Too often under these circumstances, an unduplicated count is only estimated, not actually known. This does not mean it is greatly inaccurate, but it does enter an element of subjective judgment and possible bias into the enrollment figures reported to the State and thus to the Federal Government.

Collecting actual numbers of students is only the first step. In at least two States -- Connecticut and Ohio -- vocational education enrollment data are collected by occupational program rather than by individual class, and most States attempt to do this. It takes care of the problem of an unduplicated count, but a second problem still exists. The data collected from either class totals or program totals can be used only in the form in which they are collected. Further analysis of student characteristics cannot be made beyond head count totals as received. In States in which only class or program totals are collected, data may be obtained as to, ethnic enrollments, male and female, total enrollment in auto mechanics, nurse aide, electronics technology, or any other single category. Combinations of categories for the most part cannot be determined. It may be impossible, for example, to know how many Negro females are being trained as nurse aides, or how many disadvantaged Spanish-surnamed American males are being trained as welders or machinist or office workers. Detailed ethnic, socioeconomic, geographic, and occupational relationships on a State and national basis are severely restricted with data of this kind.

A growing number of States are solving the problem of an actual count of students -- an unduplicated count -- and also the problem of counting students within particular combinations of student characteristics by collecting individual student data at the State level. Seventeen States did this in 1970-71, and nine more plan to do so in 1971-72. The most common way of doing it is for a central office to send out individual student enrollment forms to be distributed by teachers to their students to be filled in -- or filled in by teachers from their class records -- and returned to the central office for keypunching and storage by computer. This involves time and effort, and numerous opportunities for error and lost or delayed forms by teachers, students and other local school personnel. Nevertheless, it is far superior to the earlier system of collecting hand-copied class or program totals.

A much better system, and one which is undoubtedly on the way, would be for State agencies to get their individual student enrollment data directly from each local school district where student records are processed by computer. The data thus obtained would be as accurate as the schools' own records, could be collected and tabulated all the way up to the Federal level in a fraction of the time it takes now, and could be analyzed all the way up to the Federal level in any combination of student characteristics -- and occupational and geographic characteristics -- as needed for management and policy-making decisions.

Vocational education enrollment data as reported by the States on Federal form 3138 are almost invariable incomplete in addition to their lack of uniformity in the way they are collected. Each State and often each individual school district has its own way of deciding what classes and therefore what students to report in vocational education. Traditionally, definite criteria regarding teacher qualifications, class hours, and financial support were established by the Federal Government, and classes which met the qualifications were identified as vocational education while others which might be teaching the same subjects but failed to meet the necessary Federal criteria were identified as something else. The Federal legislation of 1963 and 1968 greatly liberalized the definition of vocational education, but it has not been possible for the States to reclassify many of the programs in local schools and therefore to include students enrolled in those programs in their vocational education enrollment totals. Many of the States are attempting to do this, and apparently with some success. But whereas at one time every class identified as vocational education received some kind of Federal support for vocational education -- and therefore an obligation to report student information -- this is no longer ture. Schools which must use extra time and effort to send in Federal reports to their State Departments of Education may or may not do so without some kind of incentive, and many State Directors of Vocational Education are convinced that a sizeable number are not doing so.

A single example of this, which could probably be repeated many times over, is the District of Columbia. Virtually all vocational education being reported to the U.S. Office of Education takes place in the District's five vocational high schools which receive Federal vocational education funds. There are eleven academic high schools, however, which also offer many shop and office courses. In 1970-71 there were 740 District students enrolled and reported to the U.S. Office of Education in vocational office occupations, while there were probably between 8,000 and 9,000 students enrolled in the same type of courses in academic high schools who were not reported.[1]

This situation with numerous variations is repeated in most if not all the other States and territories. As a result, the vocational education enrollment data in Table 1 and in all other tables throughout this report, must be considered as partial data only. Since they are all that can be obtained, they are presented as the most complete picture of vocational education possible at this time. Subsequent reports of Project Baseline will attempt to throw additional light on this situation, and as data reporting systems improve in the individual States a more complete picture will emerge.

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[1] Data received from the Supervising Director of Business and Office Education, District of Columbia Board of Education, Washington, D.C. The actual enrollment in business and office occupations courses in the eleven academic high schools as of January, 1972, was 11,491. Each individual student is estimated to be enrolled in an average of one and one-half classes, thus the actual number of students -- an unduplicated count -- would fall somewhere between 8,000 and 9,000. (Exact data for 1970-71 were not obtained.)

Chapter XI

RECOMMENDATIONS

The following recommendations are based on conclusions reached from data throughout this report. A discussion of the research, and how particular observations have led to these recommendations, is contained in the preceding chapter. The Director and research staff of Project Baseline recommends:

1. THAT LEGAL AND ADMINISTRATIVE COORDINATION BE PROVIDED IN ALL FEDERALLY SUPPORTED MANPOWER AND VOCATIONAL EDUCATION PROGRAMS.

In the case of MDTA and vocational education, this has been done as far as preparation and job placement activities are concerned. The training programs established under the Economic Opportunity Act of 1964 should be coordinated with vocational education, with each agency in the U.S. Department of Health, Education, and Welfare administering economic assistance programs, and at the State level with Departments of Education, Welfare, and State Employment Agencies. Perhaps this requires rewriting the Economic Opportunity Act; it certainly requires legislative amendments.

2. THAT A HIGHER PROPORTION OF FEDERAL APPROPRIATIONS BE ALLOCATED FOR VOCATIONAL EDUCATION.

The legislative authorization for vocational education is high enough to permit the President in his Budget Requests and the Appropriations Committees of Congress to make this adjustment without additional legislation. It requires that a different formula be used than the one now in effect by which the U.S. Office of Management and Budget arrives at individual budget items for essentially the same purpose in two different departments. The President's efforts to limit Federal spending would not be jeopardized, but instead would probably benefit.

Whatever amount of the total budget could be shifted from the manpower training programs to vocational education would decrease the amount of money needed to support all of these programs.

If the U.S. Office of Budget and Management cannot make this kind of decision in the face of inter-agency rivalries and pressure, then it shouldbe made by the Appropriations Committees of Congress. Testimony presented to these Committees in support of the present imbalance should be examined in the light of documentation of results, both that which has formed the basis for the report of Project Baseline and any additional documentation that may become available. On the basis of the evidence here, unless additional evidence does become available, such a shift in appropriations seems clearly in the national interest.

3. THAT POST-SECONDARY AND ADULT PROGRAMS RECEIVE FIRST PRIORITY IN AN INCREASE OF FEDERAL EXPENDITURES FOR VOCATIONAL EDUCATION.

There seems to be little doubt that these are the categories of vocational education most in need of substantial support. Moreover, if the additional funds are diverted from existing manpower programs in order to produce numerically greater results, these are the levels of vocational education where they must be used. These are the levels of greatest concern to Congress in the Amendments of 1968, and the levels most difficult to expand under limited Federal support.

Probably the most important argument for increased support of post-secondary and adult vocational education, especially the latter, is that the one segment of the population most difficult to reach or impossible to reach through the secondary programs is school dropouts. Supposedly, these are the persons the MDTA and EOA training programs are serving, however costly that service may be. If it is reduced through a shift of funds to vocational education, the vocational education has a strong moral if not legal obligation to pick up this responsibility. Vocational education does, indeed, have the flexibility to serve this segment of the population, and a great many local schools across the Nation are doing so. Almost inevitably disadvantaged persons in particular require additional basic instruction rather than just training in job skills.

4. THAT TEACHER EDUCATION PROGRAMS BE EXPANDED AND FUNDED TO BETTER PREPARE CLASSROOM TEACHERS FOR CAREER EDUCATION.

If career education is to become a reality, the great majority of teachers of all subjects and at all levels will have to be educated in its basic concepts, content, and teaching skills required. It is not necessary to wait until the U.S. Office of Education's career models are completed to begin preparing teachers to function adequately in a redesigned school program; there are enough career education programs in operation throughout the United States now to provide the materials and the direction in which to move. The biggest single obstacle in the way of developing career education for all students, within at least the working lifetime of most educators now in the schools, is their lack of preparation and lack of commitment to undertake such fundamental changes in their teaching.

This is also the one element in career education that takes the longest lead time to develop compared with facilities, equipment, curriculum, and administrative reorganization. Lacking this element, career education will continue to be little more than an extension of vocational education. While recognizing that even this is a major improvement over the academically oriented education of the past, it falls considerably short of involving all academic instruction and all students in a completely redesigned program. Vocational educators are carrying most of the responsibility for career education at the present time, a substantial part of which should be assumed by academic teachers as well.

There is another very practical reason for instituting a nation-wide teacher re-education program at the earliest date possible: There are teachers available and students wanting to be teachers to enter the program on a fairly substantial basis. For the first time in a quarter of a century the supply of teachers has caught up with the employment demand. A similar situation exists in the universites. Graduate schools are in a position to develop large scale programs of this kind, which has not been true in the past.

The Federal administrative machinery already exists in the Educational Professional Development Program in the U.S. Office of Education, but specific legislative direction would be needed. An amendment to the present legislation should be considered. Appropriations for this purpose may need to be shifted from other EPDA purposes for which the present need is not as urgent.

5. THAT VOCATIONAL EDUCATION AT THE SECONDARY LEVEL PLACE INCREASING EMPHASIS ON JOB CLUSTER INSTRUCTION.

The Senate Report accompanying the Vocational Education Amendments of 1968 states: "The manpower needs of the economy are becoming so highly technical, varied and shifting that it is highly improbable that a single-purpose terminal secondary school training program can adequately prepare students for a lifetime career." The House Report on the same bill expressed the same point of view in more detail: "Occupational preparation should become more specific in the high school, though not limited to only one vocation. Instruction should not be overly narrow, but, instead, should be built around significant families of occupations or industries which promise expanding opportunities." (See Appendix A.)

Many States and local schools are moving in this direction, but many are moving too slow or not at all. There are numerous indications that vocational students are too often provided with only the opportunity for employment in a single occupational area and are poorly equipped to compete in a fluctuating employment market.

Preparation in an occupational cluster should include competency in a specific occupation as well as thorough knowledge of all related occupations within the cluster or provide preparation for specialized training in post-secondary institutions.

6. THAT ALL OF THE NATION'S ELEMENTARY AND SECONDARY SCHOOLS BE ENCOURAGED TO INSTITUTE CAREER EDUCATION FOR ALL STUDENTS, AND THAT VOCATIONAL EDUCATION BE AN INDISPENSABLE AND EXPANDING ELEMENT OF CAREER EDUCATION.

The extent to which career education is gaining favor with the educators, parents, students and the general public in virtually every State is, perhaps, the most significant development in public education in the past decade. Whether it results eventually in fundamental changes in the curriculum, teaching, and administrative organization of America's public schools or is dissipated in an excess of zeal without adequate resources remains to be seen. The former would require great effort and resolution because fundamental changes do not come easily in American education. The latter would be a national misfortune, possibly to the extent of catastrophe.

If, however, career education does become the reality, as its advocates so ardently believe it must, vocational education will most certainly have to be expanded. Both vocational education and academic education will have to change, or continue to change where progress has already begun. The transitional experience may be disturbing to many educators in both academic and vocational fields, but the result holds great promise for both. Evidence is already accumulating that the goals and objectives which lead to it are entirely feasible. Results which might be detrimental or unsatisfactory are not in noticeable evidence.

Nevertheless, career education will not just happen. It will not come about through any inevitable process or even emerge out of dire necessity. It should be given extensive consideration wherever possible, serious and careful planning, deliberate and perhaps cautious development and strong support at all levels of financial and administrative policy -- local, State, Federal.

7. THAT A SPECIAL PROGRAM OF FEDERAL ASSISTANCE BE ESTABLISHED FOR FACILITIES AND EQUIPMENT.

This recommendation is aimed primarily at general business and industrial arts programs, which often have been equipped with obsolete tools and machines. It is also directed toward vocational education programs where funds have been too limited to provide adequate facilities in the first place or to keep them up-to-date with changing technology and training requirements.

Adequately equipped training facilities are an absolutely essential part of career education, and with the apparent interest in this direction the schools are going to need assistance in providing such facilities for all high school students especially.

New legislation is probably needed to make this possible. It should be expedited if possible, perhaps as an amendment to any educational legislation which Congress may have under consideration.

8. THAT THE U.S. OFFICE OF EDUCATION AND CONGRESS BEGIN CONSIDERATION NOW OF A NEW NATIONAL EDUCATIONAL DATA SYSTEM.

Data generated at the source by educational institutions for their own purposes can be used by State and Federal agencies without duplication of effort, cost, or initial hand recording. Included may be (a) data from students and/or parents on age, sex, ethnic identity, parents' occupations, zip code, income bracket, welfare status if any, and years in school. Names and addresses other than zip codes should be omitted to protect the privacy of students, and social security or other identifying numbers should be scrambled at the source with the scramble key remaining with the original files; (b) data from teachers on age, sex, ethnic identity, level of education achieved, certification, teaching and non-teaching work experience, salary, position, number and length of classes per week, and number of students; (c) data from school records on individual student test scores in achievement, aptitude, and interest, courses in which enrolled and completed, career interest, handicaps if any, special classes or assistance if any, all by unique scrambled identification numbers to permit tabulation by any combination of student characteristics without revealing actual identity. Also from school records could come mode of instruction (extent and depth) of each course offered, school, county, and State codes; (d) financial data on expenditures by unit of instruction including administration and maintenance divided into pro rata costs per unit of instruction, sources of revenue and amounts from each source, purposes of each, and expenditures by purpose.

All of these data should be recorded initially on magnetic tape by computer facilities using nationally standardized coding and definitions. At least half of all elementary and secondary students in the United States attend schools already using computer facilities, and the number may be much higher. Within a few years it will include all but small and isolated schools and those without adequate financial resources to take advantage of modern data processing.

The technical procedures of compiling student data files from separate schools using different kinds of equipment and coding have already been developed, and Project Baseline will use essentially these procedures in the coming year to demonstrate the compilation of individual vocational student files from several States for national tabulations and analyses. It is not too early to begin consideration of the means of national implementation of such a system when the developmental and field testing work has been done.

The cost to the Federal Government should be no more and probably less than it costs now to gather only a fraction of these data through paper reporting systems, research, surveys, and periodic updating by hand methods. The bulk of the cost is in gathering the data in the first place, keypunching, and storage on tape or cards. This is already being paid for by the local school districts. All that remains is the cost of copying tapes or cards, conversion to a standard tape format, and making tabulations and analyses of comparable data in a national data processing center.

The States are almost certainly going to require Federal assistance in developing unified educational data systems of their own. These in turn will serve a dual purpose as collecting stations for the national system and data facilities for policy-making and school administration in the States. The major cost for the States will be to assist school districts where computer facilities are not yet available to acquire data processing services. This can be done by using existing facilities in each State, and these are usually available in university and community college data processing centers. A special Federal program will probably be necessary to provide funds for this purpose.

It [illegible] doubtful if additional administration or equipment at the Federal level will be needed. The National Center for Educational Statistics probably has adequate authorization and administrative capability to operate such a system, requiring only the necessary budget provisions for additional staff. The National Aeronautics and Space Administration probably has the necessary equipment and technical personnel.

9. THAT CONGRESS PROVIDE THE FUNDS SPECIFICALLY AUTHORIZED FOR A SYSTEMATIC FOLLOW-UP OF ALL PERSONS WHOSE TRAINING IS FEDERALLY SUPPORTED.

This does add a considerable expense to the vocational education and manpower training programs, but the only alternative is probably not to know how well they have succeeded. If a national education data system is developed as recommended above, the major expense will have been taken care of. This is to get the names and addresses of all students in the program so they can be contacted later. Names and addresses are always recorded, but in following up vocational students most States have found it necessary to record them a second time for this specific purpose. It is expensive, time consuming, and easily subject to errors.

A national follow-up system for both vocational education and manpower training could be developed by paying the cost of mailing a standardized form six months or a year after each student or trainee leaves the program. The forms designed for computer-addressing, with re-fold prepaid return, could be mailed from local school data centers. The return address would deliver the responses to a central tabulation station, and complete statistical data with scrambled identifying numbers could then be fed into the States' educational data system. From there they would go to the National Center for Educational Statistics for computer analysis. The analysis could be by occupational area, geographic distribution, age, sex, race or ethnic identity, programs completed, length of programs, and other variables which contribute to employment success such as previous work experience and physical condition.

Additional Federal funds are probably necessary to implement a workable follow-up system for two reasons: This would more likely produce standardization of procedures and therefore of data; and many States should not have additional Federal, State, or local funds to divert from operating programs into this activity. The additional Federal funds could be made available from vocational research appropriations if these were restored to their legal allocations. The Administration has failed to budget the proportionate amount required for vocational research in the Act of 1963 for each of the past seven years; and Congress in its annual Appropriations Act has corrected this violation only once during that time. These funds, if properly budgeted and appropriated, could support a good follow-up system in vocational education.

An Idea for Consideration

In addition to the recommendations above, the Director and staff of Project Baseline have developed a suggestion. It is not based on research but on questions raised by the research in this study. It is offered as a possible new dimension to vocational education and manpower training:

> THAT CONSIDERATION BE GIVEN TO ESTABLISHING A VOLUNTARY YOUTH OPPORTUNITY CORPS TO ASSIST THOSE WHO NEED IT IN THE TRANSITION FROM SCHOOL TO THE WORLD OF WORK.

A Federal program based on some features of the Peace Corps and VISTA should be available to youth who are not ready for employment when they leave school. Enlistment should probably be for a specified period of time, and enlistees should be given several months of intensive training for employment in a particular occupational area. This program should include personal performance, employee behavior, work rules, business and industry organization, salaries, promotions, job security, application procedures, standards of performance, and continuing education requirements and opportunities.

Interest and aptitude testing similar to what the armed services and Veterans Administration use could aid in developing each enlistee's individual programs. Following the training period, enlistees should be placed in jobs specifically developed for this purpose by business and industry and public service agencies through the coordinating efforts of the U.S. Department of Labor and State Employment Service agencies.

Such a voluntary youth opportunity corps should be developed on a scale large enough to absorb all applicants between the ages of fifteen and twenty-four who might at another time have gone into military service, into educational institutions in which they may have no real interest, may have become unemployed, or may have simply drifted with no purpose in life and a high potential for crime. Social and economic as well as racial and ethnic segregation should be avoided as completely as in the Peace Corps, VISTA and the armed services. Most importantly, participation should be both voluntary and open to everyone.

Unlike other somewhat similar organizations, the only requirement for admission, except possibly an age limit, should be the desire to join. Youth who have handicaps -- physical, emotional, environmental -- and youth who do not have handicaps should be accepted. Youth from economically deprived and ethnically isolated worlds should be accepted and should be given every opportunity to strengthen their chance for constructive lives through this experience. Youth from middle and upper middle class worlds, who seem to have all the advantages but feel alienated or lack the skills and self-esteem to find constructive roles for themselves in the economic and social system, should be accepted.

Possibly, coordination and joint participation could be developed with the Peace Corps, VISTA, the Job Corps, and in addition with such organizations as apprenticeship councils, vocational youth groups, Boys Clubs, and Girls Clubs, YMCA's, YWCA's, YMHA's, and YWHA's. It is admittedly a far reaching idea and perhaps too far removed from direct relationship to existing vocational education and manpower training programs for many persons in these fields to have had the opportunity to consider. It is offered here as a course of action which would add a new dimension to vocational education and manpower training. But it is offered primarily as a suggestion to bring the resources of the Federal Government, vocational educators, business and industry together in a concerted attempt to direct large numbers of American youth into constructive lives within the world of work.

Chapter XII

SUMMARY

In the original report a summary is included which contains the highlights of each chapter. It is omitted here because the publication of Volume II makes its use largely unnecessary. The Table of Contents and lists of Tables and Figures provide a much more accurate and reliable guide to the material contained in this volume. A summary was felt to be sometimes confusing, and, in abbreviation, often too selective. As a reference, the contents of the entire volume have an importance which a summary tends to distort.

APPENDIX A

CONGRESSIONAL OBJECTIVES OF THE MANPOWER AND VOCATIONAL EDUCATION LEGISLATION OF THE 1960'S

1962

Manpower Development and Training Act: The Congress finds that there is a critical need for more and better trained personnel in many vital occupational categories, . . . that even in periods of high unemployment, many employment opportunities remain unfilled because of the shortages of qualified personnel; and that it is in the national interest that current and prospective manpower shortages be identified and that persons who can be qualified for these positions through education and training be sought out and trained as quickly as is reasonably possible, . . . The Congress further finds that the skills of many persons have been rendered obsolete by dislocations in the economy arising from automation or other technological developments, foreign competition, relocation of industry, shifts in market demands, and other changes in the structure of the economy; . . . that many persons now unemployed or underemployed, in order to become qualified for reemployment or full employment must be assisted in providing themselves with skills which are or will be in demand in the labor market; . . .

--P.L. 87-415, Sec. 101

1963

Vocational Education Act: It is the purpose of this title to authorize Federal grants to States . . . so that persons of all ages in all communities of the State -- those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, those with special educational handicaps, and those in post-secondary schools -- will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, which is suited to their needs, interests, and ability to benefit from such training.

--P.L. 88-210, Sec. 101

1964

Economic Opportunity Act: The United States can achieve its full economic and social potential as a nation only if every individual has the opporuunity to contribute to the full extent of his capabilities and to participate in the workings of our society. It is, therefore, the policy of the United States to eliminate the paradox of poverty in the midst of plenty in this Nation by opening to everyone the opportunity for education and training, the opportunity to work, and the opportunity to live in decency and dignity. It is the purpose of this Act to strengthen, supplement, and coordinate efforts in furtherance of that policy.

--P.L. 88-452, Sec. 2

1968

Vocational Education Amendments: These basic facts must now be recognized and dealt with in considering vocational education: (1) the level of American education of greatest overall importance has shifted from the secondary level to the post-secondary level; (2) thousands of disadvantaged young people drop out of school before high school graduation; and (3) the manpower needs of the economy are becoming so highly technical, varied and shifting that it is highly improbable that a single-purpose terminal secondary school training program can adequately prepare students for a lifetime career.

--Senate Committee Report on S. 3770, 1968, p. 9.

(1) any dichotomy between academic and vocational education is out-moded; (2) developing attitudes, basic educational skills and habits appropriate for the world of work are as important as skill training; (3) prevocational orientation is necessary to introduce pupils to the world of work and provide motivation; (4) meaningful career choices are a legitimate concern of vocational education; (5) vocational programs should be developmental, not terminal, providing maximum options for students to go on to college, pursue post-secondary vocational and technical training, or find employment. The Advisory Council has recommended that occupational preparation begin in the elementary schools by providing a realistic picture of the world of work. In the junior high school, students should learn about economic and industrial systems by which goods and services are produced and distributed, and they should be exposed to the full range of occupational choices which will be available to them at a later point.

Occupational preparation should become more specific in the high school, though not limited to only one vocation. Instruction should not be overly narrow, but, instead, should be built around significant families of occupations or industries which promise expanding opportunities. Thus, a student can leave the program with a saleable skill but is challenged to pursue post-secondary education. Occupational education should be based on a spiral curriculum which treats concepts at higher and higher levels of complexity as the student moves through the program. Vocational preparation should be used to make academic education concrete and understandable, and academic education should point up the vocational implications of all education.

--House Report on H.R. 18366, 1968, p. 3.

APPENDIX B

BACKGROUND OF FEDERAL VOCATIONAL EDUCATION LEGISLATION

In the field of vocational education there has been an unbroken line of congressional interest over a 50-year period. The Smith-Hughes Act was enacted in 1917 in response to the recommendation of a Commission on Vocational Education appointed by President Woodrow Wilson in 1914. This commission recommended the establishment of vocational education programs as an integral part of the American educational system to prepare those youngsters who did not go to college -- the vast majority at that time and still a majority today -- for earning a living. The Congress responded by enacting legislation authorizing $3 million for agricultural training, $3 million for homemaking and trade and industrial education, and $1 million for teacher education in these areas.

Authority was provided for the promotion of vocational education and cooperation with States in paying the salaries of teachers, supervisors and directors of vocational education in agriculture and of teachers of trade and industrial and home economics subjects.

The George-Reed Act of 1929 temporarily provided more funds for vocational education in agriculture and home economics.

At the expiration of this act, the George-Ellzey Act of 1934 extended the authorization for funds for vocational agriculture and home economics, and also increased funds for trade and industrial education.

This act expired in 1936. The George-Deen Act, effective July 1937, provided a permanent authorization, increased funds for agriculture, home economics, and trade and industrial subjects and provided funds for a new field of distributive education.

The George-Barden Act of 1946 replaced the George-Deen Act.

The Health Amendments Act of 1956 expanded aid to the States and provided funds to the States to encourage the States to provide training in practical nursing and other health occupations.

Another act that same year provided for the promotion of the fishing industry, and included funds for vocational education in the fishery trades and industry and distributive occupations therein.

In 1958, the National Defense Education Act provided special funds under title VIII to encourage training programs to prepare highly skilled technicians necessary for the national defense.

Finally, in 1963, it was again decided on a major legislative action to revise Federal policy for support of vocational education. The patchwork approach of the past years had become obsolete; the programs for which Federal funds were available represented a very narrow part of the total spectrum of occupations.

The Act of 1963

The Vocational Education Act of 1963 represented the first basic reconsideration of vocational education since 1917. In the latter year, Congress provided $7 million per year in matching grants for training in agriculture, home economics, and "trade and industry" occupations.

By 1963, distributive education, practical nursing, fishery occupations, and technical training had been added to the list of occupational categories, and Federal appropriations for vocational education had increased to $55 million. However, the nature of the program remained unchanged -- Federal matching grants were made available to the States to be spent in specified amounts for training in each of the seven occupational categories with a minimum of Federal direction or involvement.

The immediate motivation for the 1963 act was the high level of unemployment among untrained and inexperienced youth. Longer term criticism alleged a failure to change occupational emphases in keeping with an increasingly sophisticated technical economy. More dimly recognized, but implicit, was the growing need for formal preparation for employment.

-- Senate Report on S. 3770, 1968, pp. 2-3

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